Calendar No. 169

102D CONGRESS
1st Session

SENATE

REPORT
102–113

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEARS 1992 AND 1993

REPORT

[TO ACCOMPANY S. 1507]

ON

AUTHORIZING APPROPRIATIONS FOR FISCAL YEARS 1992 AND 1993 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

TOGETHER WITH

ADDITIONAL VIEWS

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

JULY 19 (legislative day, JULY 8), 1991.—Ordered to be printed

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AUTHORIZING APPROPRIATIONS FOR FISCAL YEARS 1992 AND 1993 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEARS FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

JULY 19 (Legislative day, JULY 8), 1991.—Ordered to be printed

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Mr. NUNN, from the Committee on Armed Services, submitted the following

REPORT

together with

ADDITIONAL AND SUPPLEMENTAL VIEWS

[To accompany S. 1507]

The Committee on Armed Services reports favorably an original bill to authorize appropriations during the fiscal years 1992 and 1993 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe personnel strengths for such fiscal years for the Armed Forces, and for other purposes, and, recommends that the bill do pass.

PURPOSE OF THE BILL

This bill would:

(1) authorize appropriations for (a) procurement, (b) research, development, test and evaluation, (c) operation and maintenance and the revolving and management funds of the Department of Defense for fiscal years 1992 and 1993;

(2) authorize the personnel end strength for each military active duty component of the Armed Forces for fiscal years 1992 and 1993;

(3) authorize the personnel end strengths for the Selected Reserve of each of the reserve components of the Armed Forces for fiscal years 1992 and 1993;

(4) authorize the annual average military training student loads for each of the active and reserve components of the Armed Forces for fiscal years 1992 and 1993;

(5) impose certain reporting requirements;

(6) impose certain limitations with regard to specific procurement and RDT&E actions and manpower strengths; provide certain additional legislative authority, and make certain changes to existing law;

(7) authorize appropriations for military construction programs of the Department of Defense for fiscal years 1992 and 1993;

(8) authorize appropriations for national security programs of the Department of Energy for fiscal years 1992 and 1993; and

(9) authorize appropriations for civil defense, including programs of the Federal Emergency Management Agency, for fiscal years 1992 and 1993.

AUTHORIZATION RECOMMENDATIONS IN THE COMMITTEE BILL

The administration's amended budget request for the National Defense function of the federal budget for fiscal year 1992 was $290.8 billion, of which $213.1 billion is for programs which require authorization. For fiscal year 1993, the amended budget request is for $290.9 billion, of which $231.7 billion requires authorization.

The bill reported by the committee includes an authorization recommendation of $213.0 billion for fiscal year 1992 and $175.9 billion for fiscal year 1993.

The authorization request, and thus the committee's authorization recommendation, is substantially less than the functional total for National Defense. The primary reason for this difference is that, although military end strengths and pay raises require authorization, the actual funding for military pay and benefits (approximately $78 billion) is not reflected in this legislation. Programs for which authorizing legislation is required include procurement, research and development, operation and maintenance, revolving and management funds, military construction and family housing, weapons and environmental restoration programs of the Department of Energy, and civil defense.

BIENNIAL BUDGETING

In 1985 the Congress required the Secretary of Defense to submit a biennial defense budget every other year. The amended budget request for fiscal years 1992 and 1993 is the third biennial defense budget submitted by DOD. For the third time, this committee has authorized almost the entire portion of the defense function for the second year of the budget.

The Department of Defense and this committee have taken biennial budgeting seriously, and the committee believes that the requirement to submit biennial budgets has improved the planning process within DOD. The quality of the fiscal year 1992–1997 Future Years Defense Plan results from this improved long range planning. In the past, the lack of an overall agreement on the federal budget and on the defense portion of that budget has precluded complete biennial defense budgets. However, the budget summit agreement enacted last fall contained firm numbers for fiscal years 1992 and 1993 for both the defense budget and the overall budget.

Under these circumstances, the committee is especially disappointed with the lack of progress in implementing biennial budgeting by the other congressional committees of jurisdiction.

EXPLANATION OF FUNDING SUMMARY

The following table summarizes both direct authorizations and related budget authority levels for fiscal years 1992 and 1993 which are included in this legislation.

The columns relating to the authorization request and amounts authorized in this bill do not include funding for the following items: military personnel funding not requiring authorization; military construction authorizations granted in prior years; and other small portions of the defense function not within the authorization jurisdiction of this committee.

All of the above amounts are included in the columns relating to the budget authority request and the implication of this bill for total defense budget authority.

The total amount authorized by the committee in fiscal year 1993 is less than the amount authorized in fiscal year 1992 because authorizations for some programs were deferred without prejudice for fiscal year 1993. Approximately $40 billion was requested for these programs. Items deferred without prejudice in the fiscal 1993 authorization are identified in the funding tables for procurement and research and development by a dashed line. Funding for all Department of Energy defense programs was also deferred for fiscal year 1993.

SUMMARY OF FUNDS RECOMMENDED FOR AUTHORIZATION

	FY1992					FY1993			
	Authorization Request	Senate Authorization	Amended BA Request	Senate vs. Request	Budg Auth Implication	Authorization Request	Senate Authorization	Amended BA Request	Budg Auth Implication
Aircraft Procurement, Army	1,667.700	1,666.200	1,667.700	-1.500	1,666.200	1,247.400	1,299.900	1,247.400	1,299.900
Missile Procurement, Army	1,035.806	1,042.335	1,035.806	6.529	1,042.335	1,182.300	1,327.400	1,182.300	1,327.400
Weapons & Tracked Combat Vehicles	839.100	1,022.300	839.100	183.200	1,022.300	574.300	1,290.100	574.300	1,290.100
Procurement of Ammunition, Army	1,249.800	1,529.200	1,249.800	279.400	1,529.200	1,195.400	1,195.400	1,195.400	1,195.400
Other Procurement, Army	3,163.800	3,014.643	3,163.800	-149.157	3,014.643	3,254.400	3,274.700	3,254.400	3,274.700
Aircraft Procurement, Navy	7,114.800	7,080.800	7,786.300	-34.000	7,752.300	7,327.200	7,207.500	7,327.200	7,207.500
Weapons Procurement, Navy	4,581.300	4,834.700	4,530.700	253.400	4,784.100	4,754.600	4,872.100	4,754.600	4,872.100
Shipbuilding & Conversion, Navy	8,493.200	7,726.400	8,604.900	-766.800	7,838.100	8,210.900	8,540.800	8,210.900	8,540.800
Other Procurement, Navy	6,471.200	6,373.400	6,458.800	-97.800	6,361.000	6,446.900	6,416.100	6,446.900	6,416.100
Procurement, Marine Corps	1,039.400	1,738.737	1,010.100	699.337	1,709.437	650.900	777.761	650.900	777.761
Aircraft Procurement, Air Force	11,115.500	10,374.839	11,115.500	-740.661	10,374.839	13,456.800	6,833.272	13,456.800	6,833.272
Missile Procurement, Air Force	5,600.000	5,362.110	5,600.000	-237.890	5,362.110	6,776.800	4,105.665	6,776.800	4,105.665
Other Procurement, Air Force	8,058.100	7,929.482	8,058.100	-128.618	7,929.482	8,868.700	3,044.166	8,868.700	3,044.166
Procurement, Defense Agencies	2,089.600	2,127.708	2,089.600	38.108	2,127.708	2,185.000	1,150.314	2,185.000	1,150.314
National Guard And Reserve Equipment	0.000	617.700	0.000	617.700	617.700	0.000	134.000	0.000	134.000
Chemical Agents & Munitions Destruction	474.800	474.800	474.800	0.000	474.800	626.600	617.400	626.600	617.400
Defense Inspector General	0.300	0.800				0.000	0.000		
Total Procurement	62,994.406	62,916.154	63,685.006	-78.752	63,606.254	66,758.200	52,086.578	66,758.200	52,086.578
R,D,T& E Army	6,307.300	6,522.068	6,307.300	214.768	6,522.068	5,898.300	5,987.268	5,898.300	5,987.268
R,D,T& E Navy	8,194.233	8,417.708	7,503.333	223.475	7,726.808	9,399.125	8,747.410	9,399.125	8,747.410
R,D,T& E Air Force	15,032.600	14,673.254	15,032.600	-359.346	14,673.254	15,154.600	10,494.385	15,154.600	10,494.385
R,D,T& E Defense Agencies	10,238.500	10,367.978	10,238.500	129.478	10,367.978	10,462.900	4,546.423	10,462.900	4,546.423
Developmental Test & Evaluation	286.300	271.300	286.300	-15.000	271.300	289.000	289.000	289.000	289.000
Operational Test & Evaluation	14.200	14.200	14.200	0.000	14.200	14.700	14.700	14.700	14.700
Total Research & Development	40,073.133	40,266.508	39,382.233	193.375	39,575.608	41,218.625	30,079.186	41,218.625	30,079.186

SUMMARY OF FUNDS RECOMMENDED FOR AUTHORIZATION

	FY1992					FY1993			
	Authorization Request	Senate Authorization	Amended BA Request	Senate vs. Request	Budg Auth Implication	Authorization Request	Senate Authorization	Amended BA Request	Budg Auth Implication
Operation & Maint., Army	21,886.800	21,263.100	21,886.800	-623.700	21,263.100	19,936.500	20,039.200	19,936.500	20,039.200
Operation & Maint., Navy	23,934.200	23,148.350	23,934.200	-785.850	23,148.350	23,699.800	23,781.100	23,699.800	23,781.100
Operation & Maint., Marine Corps	1,894.600	2,170.300	1,894.600	275.700	2,170.300	1,739.800	2,190.200	1,739.800	2,190.200
Operation & Maint., Air Force	20,351.900	19,963.380	20,351.900	-388.520	19,963.380	20,760.400	21,047.600	20,760.400	21,047.600
Operation & Maint., Defense Agencies	8,794.800	8,635.800	8,794.800	-159.000	8,635.800	7,583.200	9,119.800	7,583.200	9,119.800
Office of the Inspector General	115.900	120.100	116.200	4.700	120.900	116.700	116.700	116.700	116.700
Operation & Maint., Army Reserve	937.200	963.100	937.200	25.900	963.100	973.100	993.500	973.100	993.500
Operation & Maint., Navy Reserve	816.100	841.500	816.100	25.400	841.500	797.000	816.950	797.000	816.950
Operation & Maint., Marine Corps Reserve	75.900	81.900	75.900	6.000	81.900	75.400	77.650	75.400	77.650
Operation & Maint., Air Force Reserve	1,075.400	1,080.900	1,075.400	5.500	1,080.900	1,232.500	1,263.900	1,232.500	1,263.900
Operation & Maint., Army National Guard	2,080.700	2,128.900	2,080.700	48.200	2,128.900	2,083.700	2,116.300	2,083.700	2,116.300
Operation & Maint., Air National Guard	2,287.800	2,280.400	2,287.800	-7.400	2,280.400	2,700.900	2,723.600	2,700.900	2,723.600
Rifle Practice, Army	5.000	5.000	5.000	0.000	5.000	5.000	5.000	5.000	5.000
Court of Military Appeals	5.500	5.500	5.500	0.000	5.500	5.900	5.900	5.900	5.900
Environmental Restoration, Defense	1,252.900	1,183.900	1,252.900	-69.000	1,183.900	1,450.200	1,450.200	1,450.200	1,450.200
Goodwill/World University Games	0.000	1.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000
Humanitarian Assistance	13.000	13.000	13.000	0.000	13.000	13.000	13.000	13.000	13.000
Drug Interdiction, Defense	1,158.600	1,158.600	1,158.600	0.000	1,158.600	1,249.400	1,249.400	1,249.400	1,249.400
Rest. of Rocky Mountain Arsenal	0.000		20.000	0.000	20.000			20.000	20.000
Summer Olympics	0.000	2.000	0.000	2.000	2.000	0.000	0.000	0.000	0.000
Total Operation & Maintenance	86,686.300	85,046.730	86,706.600	-1,639.070	85,067.530	84,422.500	87,010.000	84,442.500	87,030.000
Army Stock Fund	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Air Force Stock Fund	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Defense Business Operations Fund	3,400.200	3,400.200	3,400.200	0.000	3,400.200	2,273.200	1,145.300	2,273.200	1,145.300
Pentagon Reservation Maint. Rev Fund	0.000	0.000	0.000	0.000	0.000	63.300	0.000	63.300	0.000
Total Revolving/Management Funds	3,400.200	3,400.200	3,400.200	0.000	3,400.200	2,336.500	1,145.300	2,336.500	1,145.300

SUMMARY OF FUNDS RECOMMENDED FOR AUTHORIZATION

	FY1992					FY1993			
	Authorization Request	Senate Authorization	Amended BA Request	Senate vs. Request	Budg Auth Implication	Authorization Request	Senate Authorization	Amended BA Request	Budg Auth Implication
Total Military Personnel			78,016.900	237.100	78,254.000	0.000	0.000	77,513.400	78,344.000
Total Legislative Proposals	-100.000	0.000	-335.900	335.900	0.000	-710.000	0.000	-902.900	0.000
Military Construction, Army	851.300	865.500	851.300	14.200	865.500	959.800	394.600	959.800	394.600
Military Construction, Navy	657.800	868.781	657.800	210.981	868.781	745.100	197.100	745.100	197.100
Military Construction, Air Force	1,061.900	952.290	1,082.400	-109.610	972.790	780.500	213.100	780.500	213.100
Mill. Construction, Defense Agencies	571.600	658.440	571.600	86.840	658.440	236.100	178.200	236.100	178.200
NATO Infrastructure	358.800	314.417	358.800	-44.383	314.417	266.200	226.200	266.200	226.200
Mill. Construction, Army National Guard	50.400	122.874	50.400	72.474	122.874	54.100	37.527	54.100	37[illegible]27
Mill. Construction, Air National Guard	131.800	184.300	131.800	52.500	184.300	40.600	41.580	40.600	41.580
Military Construction, Army Reserve	57.500	66.241	57.500	8.741	66.241	28.200	7.000	28.200	7.000
Military Construction, Naval Reserve	20.900	56.900	20.900	36.000	56.900	26.400	3.900	26.400	3.900
Mill. Construction, Air Force Reserve	20.800	20.800	20.800	0.000	20.800	36.700	4.700	36.700	4.700
Base Realignment And Closure Account	633.600	674.600	633.600	41.000	674.600	440.700	440.700	440.700	440.700
Base Realignment And Closure Commission	100.000	297.000	100.000	197.000	297.000	100.000	100.000	100.000	100.000
Leasing	0.000	534.490	0.000	64.138	64.138	0.000	64.138	0.000	64.138
Total Military Construction	4,516.400	5,616.623	4,536.900	629.881	5,166.781	3,714.400	1,908.745	3,714.400	1,908.745
Family Housing, Army	1,534.300	1,538.850	1,534.300	4.550	1,538.850	1,476.927	1,476.927	1,476.800	1,476.800
Family Housing, Navy	879.900	895.900	879.900	16.000	895.900	792.900	792.900	792.900	792.900
Family Housing, Air Force	1,081.625	1,081.625	1,081.500	0.000	1,081.500	1,167.000	1,167.000	1,167.000	1,167.000
Family Housing, Defense Agencies	26.200	26.200	26.200	0.000	26.200	26.800	26.800	26.800	26.800
Homeowners Assistance Fund	84.000	84.000	89.000	0.000	89.000	85.000	85.000	90.000	90.000
Total Family Housing	3,606.025	3,626.575	3,610.900	20.550	3,631.450	3,548.627	3,548.627	3,553.500	3,553.500
Trust Funds/Offsetting Receipts	0.000	0.000	-720.800	0.000	-720.800	0.000	0.000	-740.800	-740.800
Total DoD Military	201,176.464	200,872.790	278,282.039	-301.016	277,981.023	201,288.852	175,778.436	277,893.425	253,406.509

SUMMARY OF FUNDS RECOMMENDED FOR AUTHORIZATION

	FY1992					FY1993			
	Authorization Request	Senate Authorization	Amended BA Request	Senate vs. Request	Budg Auth Implication	Authorization Request	Senate Authorization	Amended BA Request	Budg Auth Implication
DOE Atomic Energy Defense Activities	11,768.000	11,968.000	11,768.000	200.000	11,968.000	12,231.820	0.000	12,231.820	0.000
Defense Nuclear Facilities Safety Board	12.000	12.000	12.000	0.000	12.000	13.679	14.000	13.679	14.000
Total Atomic Energy Defense Activities	11,780.000	11,980.000	11,780.000	200.000	11,980.000	12,245.499	14.000	12,245.499	14.000
Intelligence Community Staff			30.719	0.000	30.719	0.000	0.000	31.956	31.956
Selective Service Salaries & Expenses			27.480	0.000	27.480	0.000	0.000	28.316	28.316
Ready Reserve Force			225.000	0.000	225.000	0.000	0.000	234.000	234.000
CIA Retirement			164.100	0.000	164.100	0.000	0.000	168.900	168.900
FEMA Civil Defense	153.625	143.625	310.002	-10.000	300.002	152.728	137.728	299.934	284.934
Total Other Defense	153.625	143.625	757.301	-10.000	747.301	152.728	137.728	763.106	748.106
Total National Defense Function (Excluding Desert Shield/Storm)	213,110.089	212,996.415	290,819.340	-111.016	290,708.324	213,687.079	175,930.164	290,902.030	254,168.615
Title X-Desert Storm Supplemental FY1991/1992 New Authorizations	2,948.700	4,392.855	2,948.700	1,444.155	4,392.855				

EXPLANATION OF THE COMMITTEE'S RECOMMENDATIONS

During the period in which the committee considered the President's amended biennial defense budget request for fiscal years 1992 and 1993, dramatic events took place in the Persian Gulf and elsewhere. Over several months beginning in August 1990, more than 500,000 U.S. military personnel deployed to the Persian Gulf, fought and won a war against Iraq, and returned to the United States, Europe, and the Pacific. At the same time, profound changes continued to occur in the Soviet Union and Eastern Europe. All of these events influenced the committee's 1991 review of our national security policy, our military strategy, and our defense budget.

The committee actually began its preparation for the fiscal year 1992 defense authorization bill in November and December 1990. In the course of five working days, the committee held eight public hearings and two closed intelligence briefings on several different aspects of U.S. policy in the Persian Gulf. Among the 16 witnesses who testified were current and former Cabinet officials and Chairmen of the Joint Chiefs of Staff and several other private experts.

After this important series of policy hearings, the committee focused its attention on the President's amended defense budget request for fiscal years 1992 and 1993 and the Future Years Defense Plan (fiscal years 1992–1997). The full committee received budget testimony from the Secretary of Defense; the Director of Central Intelligence; the Chairman of the Joint Chiefs of Staff; the unified and specified combatant commanders; the Secretaries of the Military Departments; the uniformed Chiefs of each of the military Services; and the Comptroller General of the United States. The subcommittees of the Armed Services Committee followed these hearings with an even more detailed review of the amended budget request.

During this same period, the committee held policy hearings on current trends in the Soviet Union and Eastern Europe. The committee also conducted a significant series of seven briefings on Operation Desert Shield/Desert Storm. These briefings on the operations of the war were presented by the men and women who actually fought and commanded it. For example, personnel from the 1st Marine Division, the 24th Infantry Division (Mechanized), Air Force squadrons, Navy ships, and special operations forces conveyed their first-hand perspectives on their missions, their tactics, their conditions "in the field", and the performance of their equipment. The committee also heard from the Commander in Chief of the U.S. Central Command, General H. Norman Schwarzkopf, and many of his subordinate commanders.

By the conclusion of this extensive policy and budget review, the committee had held 66 hearings with 282 witnesses during 1991. The committee also conducted 13 nomination hearings for senior civilian officials and military officers whose testimony was relevant to the pending budget request.

A NEW MILITARY STRATEGY

During 1990, the committee carefully considered the profound changes that were affecting Western security interests. The conventional military threat in Europe from the Warsaw Pact had been virtually eliminated. At the same time, the tensions and open warfare that threatened Western interests in some, but not all, other regions had also abated. In response to these changes, the committee developed a new military strategy that is guided by several elements, including the deterrence of nuclear war, a reinforcement strategy, and greater utilization of the Reserves. The committee's report (S. Rept. 101-384) on the National Defense Authorization Act for Fiscal Year 1991 discusses each of these elements in detail.

The events of the past year have confirmed the soundness of this new strategy. The Warsaw Pact was formally dissolved on July 1, 1991. The U.S. victory in the Persian Gulf validated a strategy of reinforcement and our investment in "smart" defense technology. Finally, in testimony before the committee on February 21, 1991, the Secretary of Defense presented a military strategy that is consistent with the committee's own recommendations.

COMMITTEE'S RECOMMENDATIONS ON THE AMENDED BUDGET REQUEST

The specific budgetary adjustments that the committee recommends for the fiscal year 1992 defense budget flow from the military strategy that it developed in 1990 and the war in the Persian Gulf.

I. *Lessons Learned from Operation Desert Shield/Desert Storm*

Many of the changes that the committee proposes to the amended budget request are based on lessons learned from the recent conflict in the Persian Gulf. The committee recommends these changes in the context of a superb performance by our military forces at all levels. Several factors contributed to our victory: first and foremost, the high quality of U.S. military commanders and their personnel; tough, realistic training; sophisticated technology; and streamlined, joint command relationships.

Most of the lessons learned from the Persian Gulf war are still preliminary. They require more time and study before they can be considered conclusive and permanent. Moreover, the committee had not received the interim DOD report, *Conduct of the Persian Gulf Conflict,* at the time of its mark-up. Therefore, the committee focused its attention on those lessons on which there is already wide agreement, such as mine countermeasures, Marine Corps modernization, the value of stealth technology, and tactical intelligence.

Most people recognize that one of the lessons learned from Operation Desert Shield/Desert Storm was that the Navy is woefully short of mine countermeasures. The committee understands that the amended budget request was presented to the Congress before the conclusion of Operation Desert Storm. Nevertheless, we should have learned several years ago, during Operation Earnest Will, that our mine countermeasures capabilities were inadequate and that we still would have major difficulties in conducting operations in the face of a mine threat.

Therefore, one of the committee's major initiatives in this bill is to improve mine countermeasures capability, including some specific program adjustments:

adding two coastal minehunters to the shipbuilding account;

retaining the Reserve helicopter mine countermeasures squadrons in the force structure;

increasing research and development funds by $139 million to explore ways of countering mine threats; and

shifting the lead for mine countermeasures research from the Navy to the Marine Corps.

The committee also learned of other deficiencies during visits to the Persian Gulf and briefings from tactical units after Operation Desert Shield/Desert Storm. One conclusion is that modernization of the Marine Corps has lagged behind that of the other Services. The committee decided that the evidence is overwhelming that the Marine Corps needs upgrades in night fighting capability, firepower, and tactical intelligence.

The committee recommends funding for a major modernization package for the Marine Corps, including:

60 M-1A1 tanks (to be made available from the Army inventory);

AV-8B Harrier aircraft remanufacturing to include night fighting capability;

27 multiple launch rocket systems;

$70 million for night vision devices;

$550 million for new Maritime Prepositioning Ship (MPS) equipment; and

transferring responsibility for MPS from the Navy to the Marine Corps.

The committee believes that the Air Force can greatly improve its firepower by buying more aircraft like those that performed so well in the Persian Gulf. The amended budget request included an Air Force plan to continue F-16 production for two more years, in spite of the fact that only 16 percent of the F-16 fleet contributed to the Persian Gulf campaign. In contrast, the F-117 stealth aircraft played a pivotal role in the air campaign, although only about 50 F-117 aircraft participated. As a result, the committee terminates the F-16 production line in order to procure 24 more capable F-117s.

The committee is deeply concerned over the casualties caused by "friendly fire" during Operation Desert Shield/Desert Storm. In any future conflict in the Third World or elsewhere, the capability to distinguish between the enemy and our own troops will be critical to avoiding these unfortunate incidents. The committee therefore adds $10 million to initiate a combat identification system and directs the immediate use of a DARPA-developed identification system in Army contingency forces.

Operation Desert Shield/Desert Storm revealed shortcomings in intelligence support to unified commanders and their combat forces, especially for damage assessment and targeting of mobile tactical systems. The committee believes that these shortcomings are due primarily to management problems and deficiencies in intelligence processing, analysis, and dissemination. To remedy these problems, the committee recommends a significant package of tactical intelligence funding and policy initiatives that is discussed in more detail later in this report.

II. *Maintain Nuclear Deterrence at Lower Levels and with Greater Stability*

A second theme that guided the committee's budget review was the need to develop plans to maintain deterrence and increase stability while reducing the level of strategic forces. The committee paid particular attention to the testimony from U.S. intelligence agencies that the modernization of Soviet strategic forces continues unabated despite Soviet economic problems, that the only reductions to Soviet strategic forces appear to be those that would be required under START, and that the strategic capabilities the Soviets will possess in their START-constrained forces, once their modernization is completed, will maintain the overall strategic nuclear warfighting capability that the Soviet Union possesses today.

The committee also took note of the lessons from Operation Desert Storm regarding the political significance of defenses against ballistic missiles and the important use of strategic systems in conventional war.

The committee agrees that the time has come to move forward vigorously with defenses against ballistic missiles. In the committee's judgment, an urgent effort is needed to develop and deploy improved anti-tactical ballistic missile (ATBM) defenses for U.S. forward-deployed and expeditionary forces and to develop theater defenses in cooperation with our friends and allies. The committee further agrees that progress in the development of strategic missile defenses now warrants the development of a different architecture. The new architecture would be designed to provide defenses for the United States against limited ballistic missile strikes, including accidental or unauthorized launches or deliberate Third World attacks. Deployment of such defenses would begin with an initial, ABM Treaty-compliant site, probably at Grand Forks. Recognizing that the United States might deem it necessary to deploy a modest number of additional ABM sites to provide protection against some threats which would not be effectively countered by 100 interceptors at a single site, the committee also urges the President to begin immediate negotiations with the Soviet Union, seeking agreement to modify the ABM Treaty to permit a more effective limited defense. Maintaining strategic stability throughout the negotiations and during the deployment of ABM defenses remains a paramount goal.

The committee authorizes the full request for the B-2 bomber program, noting that the value of stealth was clearly displayed during Operation Desert Storm, that penetrating bombers contribute significantly to stability, and that the pending START Treaty is expressly structured to emphasize penetrating bombers.

Last year, the committee deferred the procurement of Rail Garrison MX trains because of excessive concurrency, and deferred a decision on additional Trident submarines beyond the 18th boat. In the amended budget request for fiscal years 1992 and 1993, the administration terminated both the Trident submarine program with the construction of the 18th boat and the program to procure operational Rail-Garrison MX trains.

The administration proposed to procure one set of production MX rail cars and complete an evaluation of their compatibility with the rail network, so that, in a prolonged crisis, the MX Rail Garrison system could be resurrected. However, operational MX missiles will remain in silos indefinitely. The committee therefore took measures to prevent the test firing of MX missiles in such a way as to "capture" the MX as a mobile system under START. The committee also fully funds the Small ICBM program to provide an additional mobility option. The committee authorizes production of another 12 MX missiles for the operational test program, both to extend the availability of MX test missiles beyond the year 2003, and to avoid significant and costly layoffs of ICBM production workers before they will begin production of the Small ICBM. The committee also fully funds the Advanced Cruise Missile and the SRAM-II and SRAM-T missile programs.

The committee increases funding for the Trident II missile in order to bring the planned production (including purchases of Trident II missiles for the British Trident program) up to 72 missiles per year for both fiscal years 1992 and 1993. For budgetary reasons, the Navy proposed to complete the planned buy of Trident II missiles at a rate of only 48 missiles per year, well below the optimum rate of 72 per year. By accelerating the production of Trident II missiles, the committee expects to reduce the remaining cost significantly and conclude the production program some five years earlier than planned.

III. *Emphasize a Reinforcement Strategy*

The committee also sought to emphasize a reinforcement strategy in this year's budget review. This strategy would reduce the number of forward-deployed forces and strengthen our reinforcement capability, including the use of Reserves to augment the remaining forward-deployed forces.

Because so few U.S. forces were forward-deployed in the Persian Gulf at the beginning of the recent crisis, Operation Desert Shield/Desert Storm provided a real opportunity to test this concept. What we accomplished was the largest, quickest deployment that U.S. forces have ever undertaken. The committee believes this performance clearly confirms the effectiveness of this approach.

A. *Reduce Overseas Forces*

Last year, the committee indicated that the United States should begin planning for a significantly lower level of U.S. military forces in Europe and took the first step toward this goal by lowering the European troop strength (ETS) ceiling by 50,000. This year, the committee recommends that the United States continue on this path by reducing the ETS ceiling to 235,700—a level that will require the withdrawal during fiscal year 1992 of approximately 50,000 U.S. troops currently stationed in Europe.

B. *Emphasize Lighter, More Lethal Forces*

Although the military Services have begun to field forces that depend less on heavy combat equipment geared exclusively toward the Soviet/Warsaw Pact threat, much more remains to be done. The committee proposes several specific adjustments to develop lighter, more lethal forces:

Special operations forces: The committee adds $128.5 million to improve the capability of special operations forces, including additional radios, ammunition, and training.

Marine Corps fire support: The committee recommends $95.3 million for multiple launch rocket systems and $2.5 million to initiate development of a new lighter weight 155mm howitzer.

Soldier/Marine enhancement program: The committee notes that the products from this program improved the effectiveness of the individual soldier and Marine in the Persian Gulf. Therefore, the committee adds $30.0 million to continue this effort to deliver better equipment to the troops.

Navy shore fire support: To improve the Navy's capability to support forces deployed ashore, the committee adds $31.0 million to investigate alternative fire support capabilities.

C. *Emphasize Mobility Forces*

Mobility forces demonstrated the key role they play in a reinforcement strategy by their outstanding support of the deployment to the Persian Gulf. The committee continues the research, development, and production of the C–17 airlift aircraft. Because of its assessment of the C–17 development and testing program, the committee recommends continuing production at a rate of 4 aircraft in fiscal year 1992. The committee authorizes $245.0 million for procurement of an amphibious cargo ship and $265.9 million for building 12 air cushion landing craft. The committee also directs the Secretary of Defense to submit a report on the goal for Navy shipping to support Marine Corps amphibious landings. To prepare contract designs for building sealift ships already budgeted and to continue designs for longer term alternative ships, the committee approves an additional $25.0 million.

The committee notes that the Maritime Prepositioning Ships (MPS) delivered the heavy equipment for Marine forces in the Persian Gulf effectively and quickly. In order to ensure that the MPS program remains focused on the needs of the Marines, the committee transfers management responsibility for all MPS programs from the Navy to the Marine Corps. Funds totaling $550.0 million were added for prepositioning equipment to modernize the MPS equipment used in the Persian Gulf or to outfit any new MPS squadrons built with strategic sealift funds, depending on the results of the Defense Department's Mobility Requirements Study.

IV. *Utilize the Reserves More*

Last year the committee included greater utilization of Reserve forces as a cornerstone of its new strategy. Operation Desert Shield/Desert Storm demonstrated the vitality of the Total Force Concept. Despite its uneven implementation over the past 18 years, the Total Force Concept has given us an integrated military establishment that utilizes the citizen-soldier as well as the full-time military professional.

The committee restates its conviction that a strong reserve component is an indispensible element of our military establishment. The committee remains committed to strengthening the National Guard and Reserve components during this period of substantial realignment in our forces.

In this regard, the committee adopted Selected Reserve end strengths that are substantially higher than those requested by the Department of Defense. Rather than a 16 percent reduction over two years as proposed by the Department of Defense, the committee's recommendation reduces Selected Reserve strength by six percent, holding the active/Reserve "tooth to tail" ratio roughly constant over fiscal years 1992 and 1993. The committee took this action because it could find no analytical justification for the disproportionate reductions proposed by the Department of Defense.

The committee also proposes a legislative provision that would prohibit the Navy from deactivating its Navy Reserve helicopter minesweeper squadrons. The Navy Reserve has successfully supported minesweeping operations, and the committee found no basis for the Navy's recommendation to deactivate those squadrons.

In an effort to strengthen the Reserve components' combat capability, the committee increases the funding for equipment for the Reserve and National Guard components by $618 million. These funds are in addition to the $1.5 billion in Reserve equipment that was requested by the administration.

V. *Maintain Technological Superiority*

The committee recommends a variety of provisions intended to continue America's defense technological superiority. An authorization of $5.23 billion is proposed for defense science and technology programs, an increase of 9.5 percent over the administration's amended budget request. The committee also recommends over $320 million for defense manufacturing technology programs, which is about $220.0 million more than the administration's amended budget request.

One consistent theme found in the committee's recommendations is the promotion of stronger and closer cooperation among the federal government, academia, and private industry. The committee recommends establishing technology and manufacturing partnerships in which private sector participants assume leadership roles and provide at least one-half of the total cost. To support Defense Department participation in these partnerships, the committee adds $170.0 million for the Defense Advanced Research Projects Agency (DARPA) and the Military Departments.

The committee authorizes $50.0 million to promote the military and commercial application of critical technologies developed through the use of industry-led critical technology application centers. The committee also recommends $15.0 for the Pilot Mentor Protege Program to encourage defense contractors to subcontract with small disadvantaged businesses.

The committee's recommendations also include several provisions intended to strengthen America's defense manufacturing base. The committee proposes a total authorization of $250.0 million for defense manufacturing technology (MANTECH) programs, an increase of $153.0 million over the amended budget request. Of this amount, $50.0 million is specifically directed to support industry-government advanced manufacturing technology partnerships. Defense manufacturing extension programs to help small and medium-sized manufacturing firms are also established with an authorization of $50.0 million in fiscal year 1992 and $65.0 million in fiscal year 1993.

The committee adds funds for the Defense Department's support of science, mathematics and engineering education. The committee is concerned about the projected shortage of young Americans adequately prepared for college-level science and engineering programs. Therefore, the committee recommends an additional $10.0 million to support the development of innovative approaches to improving science and mathematics education in primary and secondary schools. The committee also includes a provision that would establish a $25.0 million DOD grant program to support manufacturing engineering education in American universities and colleges. And, recognizing the importance of expanding our defense research capability, the committee recommends $15.0 million to enhance the participation of historically Black colleges and universities and minority institutions in defense science and technology programs.

The committee continues to be deeply interested in environmental protection and clean-up and recommends $100.0 million for the Strategic Environmental Research and Development Program. It also authorizes an additional $200 million for the Department of Energy's New Production Reactor, environmental restoration and waste management programs, and nuclear weapons safety program.

VI. *Protect the Industrial Base*

The committee is deeply concerned over the health of the industrial base. During hearings on the subject, it became clear that the Defense Department does not fully understand the scope and seriousness of this problem. Neither is there a clear sense of responsibility in the Department of Defense for protecting the industrial base.

To the extent possible, the committee took specific action on certain weapon systems in order to preserve unique skills and capabilities in the industrial base. In several areas, there is virtually no commercial counterpart to skills and activities in the defense industrial sector, and those skills would be lost if the production of current weapons is completely terminated. The committee calls on the Defense Department to undertake a careful case-by-case assessment of the industrial base and the areas that need preservation.

The committee recommends increased funding for a service life extension program for AH-64 helicopters, additional Patriot air defense missiles in fiscal year 1992, M2 Bradley fighting vehicles and multiple launch rocket systems in fiscal year 1993, and a modification program to upgrade older model M1 tanks.

VII. *"Fly Before Buy"*

The committee again applied the principle of "fly before buy" to major acquisition programs. Implementing this concept will allow the Defense Department adequate time to get it right the first time before becoming deeply committed to troubled weapon systems.

The amended budget request substantially adopted this principle for many major weapon systems, but the committee decided that this approach was needed in several additional key areas:

B-2 bomber: The committee provides funds for four aircraft in fiscal year 1992 and seven aircraft in fiscal year 1993. The committee also recommends a provision that would prohibit obligating funds until the B-2 demonstrates various capabilities by passing specific testing milestones.

V-22 tiltrotor aircraft: The committee authorizes $365 million to continue the research and development program to produce a replacement for the Marine Corps medium lift helicopter. The committee adds no funds for aircraft procurement to allow additional time to recover from the recent accident in operational testing. The committee also includes a provision that would ensure an adequate independent assessment of operational testing progress.

C-17 aircraft: Because of continued delays in flight testing and production, the committee reduces the amended budget request from six to four aircraft in fiscal year 1992. The committee reserves judgment on how many aircraft should be authorized in fiscal year 1993, but includes sufficient authorization to support production of up to eight aircraft in 1993.

Advanced anti-armor weapon system-medium (AAWS-M): The committee did not increase the development funding as requested by the amended budget request and held the program to its original budget level until key problems are corrected.

VIII. *Minimize the Effects of the Defense Transition on Military Personnel and Their Families*

One of the committee's highest priorities was to continue to sustain and, where possible, enhance the well-being and combat effectiveness of military personnel as the military Services build down over the next four years. With this concern in mind, the committee authorizes active duty military personnel end strengths for fiscal years 1992 and 1993 that continue the military Services on a gradual glide path to achieve the fiscal year 1995 targets established by the committee last year. At the same time, the committee adopts a provision that would prevent the involuntary separation of career personnel who are ineligible to retire, because the Department of Defense has neither implemented the safety net of transition benefits provided by the committee last year, nor provided a plan for vesting military personnel in the retirement system for the committee to consider.

With regard to improving the quality of life of military personnel and their families, the committee recommends a package of compensation and benefits. This package includes a January 1, 1992 military pay raise of 4.2 percent; authority to reimburse military families for adoption expenses; permanent increases in imminent danger pay, family separation allowance, and death gratuity pay; and authority to provide military personnel who are activated or deployed in future contingencies the same set of benefits provided to Persian Gulf war personnel. The committee also authorizes several enhancements to medical benefits, including an improved dental insurance plan for dependents and hospice care under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

IX. *Improve Defense Management*

Finally, the committee approves a series of provisions, some of which were requested by the Department of Defense, to strengthen the overall management of defense programs. These management initiatives include:

designation of the Vice Chairman of the Joint Chiefs of Staff as a full member of the Joint Chiefs of Staff;

authorization of the new Defense Business Operations Fund requested by the Defense Department to put management of defense industrial activities on more of a business-like cost accounting system;

creation of the new position of Deputy Under Secretary of Defense for Policy in order to better link strategy and resources;

authorization of joint duty credit for officers whose duties in the Persian Gulf provided significant experience in joint matters or involved frequent interaction with personnel of other Services or allied forces; and

increased flexibility for the Defense Department to implement acquisition workforce reforms by authorizing the waiver or modification of rigid statutory requirements and deadlines.

TACTICAL INTELLIGENCE INITIATIVE

In testimony before the Armed Services Committee, General Schwarzkopf and other witnesses emphasized shortcomings in the intelligence support provided to him and the other commands and units in Operation Desert Shield/Desert Storm. While strategic intelligence support was apparently adequate, there were many deficiencies in tactical intelligence support, especially in real-time unit level information, damage assessment, and targetting of mobile tactical systems.

Underlying Problem

As with the bulk of conventional defense planning, the intelligence establishment has focused on the Soviet Union and the Warsaw Pact. The intelligence community spent 40 years developing a sophisticated network of sensors, analysis centers, and communications links with this threat in mind. Operation Desert Shield/Desert Storm clearly showed that this system is not well suited to contingency operations and may not have been adequate for a conventional war in Europe. Similar problems surfaced in the Grenada and Panama contingencies as well.

There were serious shortcomings in the area of processing, analyzing, and distributing timely intelligence reports. Except for imagery collection for tactical applications, intelligence *collection* systems functioned reasonably well.

The committee is convinced that the intelligence community continues to be overly preoccupied with peacetime evaluations and has never adequately embraced its responsibility for supporting warfighting commanders.

Committee Initiative

The committee recommends a comprehensive initiative to address many of the more pressing problems in the area of tactical intelligence. This initiative consists of four key elements:

improved management of the intelligence process, especially to support the warfighting commanders;

improved tactical reconnaissance systems;

improved intelligence dissemination at all levels; and

stronger emphasis on providing intelligence directly to maneuver units at brigade and wing operational levels.

Each of these elements will be discussed briefly here; detailed explanations of the elements are contained in other sections of this report.

Management Improvements

The committee believes that the most serious intelligence shortcomings in the Persian Gulf conflict ultimately are due to inadequate management. The committee, therefore, recommends a number of management improvements.

The first of these management initiatives concerns imagery processing, exploitation, and dissemination. The committee recommends enhancing the authority of the Director of the Defense Intelligence Agency as the single manager for imagery within DOD. The DIA single manager shall be responsible for budgets, personnel policies, organizational matters, standards and formats, and the assignment of responsibilities. This concept is similar in some respects to the successful single manager concept in effect for signals intelligence.

Another serious management issue is the lack of understanding of, or interest in satisfying, wartime military requirements within the national intelligence community and the corresponding lack of understanding of intelligence system capabilities within the warfighting commands. Even with months of preparation time, as we had in the Persian Gulf, this problem was not totally overcome. The committee, therefore, recommends that the Secretary of Defense, acting through the Chairman of the Joint Chiefs of Staff and the combatant commanders, regularly assume a wartime role in directing the tasking process for the national intelligence collection systems; that the intelligence community participate heavily in combatant command exercises; that the DOD wartime Joint Intelligence Center be maintained in peacetime and exercised regularly; and that the national intelligence program establish expert representation at the unified and specified commands under the J-2 intelligence directors. In this regard, the committee also requests that the Central Intelligence Agency (CIA) maintain a Directorate of Intelligence and Directorate of Operations liaison at each Joint Intelligence Center, reporting to the J-2 and maintaining direct communication to the CIA.

In a related measure, the committee recommends that the DIA Director retain his authority over the General Defense Intelligence Program (GDIP) and that his mission to manage defense intelligence be enhanced. The authority of DIA has never matched its responsibilities; transferring those responsibilities to an official in the Office of the Secretary of Defense on the grounds that DIA has been an ineffective manager therefore misses the point. The committee believes that DOD needs a strong, independent, and professional intelligence agency with the authority to develop budgets and ensure proper program execution.

The committee also recommends supplementing the authority conferred on the Chairman of the Joint Chiefs of Staff by the Goldwater-Nichols Defense Reorganization Act to permit the Chairman to assess the responsiveness and readiness of elements of the national foreign intelligence program to support operating forces in the event of war or threat to national security. In a related recommendation, the committee requests the Chairman to submit a report assessing combat support roles and missions that could be defined for appropriate activities or agencies within the national foreign intelligence program that are not currently designated as combat support agencies or activities.

Finally, the committee believes that the management structures for airborne reconnaissance systems must be changed. The committee recommends disestablishment of the airborne reconnaissance support program (ARSP), consolidation of the TR-1 and U-2 programs within the General Defense Intelligence Program (GDIP), the transfer of remaining ARSP programs to the GDIP TR-1/U-2 program, and the creation of an oversight entity outside the traditional structures within DOD to establish direction and objectives for the various airborne reconnaissance programs.

The committee believes these management initiatives will improve the ability of the tactical and national intelligence communities to support the warfighting commanders.

Improved Tactical Reconnaissance Collection Systems

The committee believes firmly that many deficiencies in intelligence support in the Persian Gulf conflict were due to shortcomings in data processing, exploitation, and dissemination, and not to poor intelligence collection capabilities. Moreover, ongoing programs in DOD are addressing most of the problems that do exist in intelligence collection.

The committee believes, however, that these programs should be enhanced and accelerated. The committee, therefore, recommends additional funding to:

accelerate the Air Force RF-16 penetrating reconnaissance program;

accelerate improvements to the Marine Corps F/A-18 penetrating reconnaissance system; and

add a reconnaissance capability to the F-117 stealth fighter.

Tactical Intelligence Terminal Improvements

A variety of ongoing DOD programs provide terminals to tactical forces to receive, process, and display critical intelligence data. The committee is concerned, however, that these systems are not being deployed widely enough or are too large to deploy easily in contingencies. The committee also is concerned that the Services are not adequately funding or managing programs to exploit the capabilities of national systems.

The committee provides guidance for downsizing radar imagery processors to permit on-board processing and smaller ground stations. The committee also recommends a variety of tactical terminals for the Marine Corps to enable the Marines to exploit existing collection systems. The committee furthermore recommends funding to reduce the size and cost of the Joint STARS radar ground stations so that lower echelon tactical forces can be equipped with JSTARS terminals. Finally, the committee directs an examination of DOD support for systems developed for exploiting national intelligence capabilities by elements within the Services, DIA, CIA, and the National Security Agency. Such systems performed very well in the Persian Gulf war, but their numbers were limited and some were still in the prototype stage.

Improved Intelligence Dissemination

A major problem revealed in the Persian Gulf is poor dissemination of intelligence products to tactical commanders. To remedy this problem, the committee recommends funding for airborne data links for a variety of systems, including the advanced tactical airborne reconnaissance system (ATARS) platforms, the RC-135 Rivet Joint signals intelligence (SIGINT) system, and the Navy's EP-3 SIGINT system.

Operation Desert Shield/Desert Storm also demonstrated that the Services cannot disseminate large volumes of intelligence and other data to and within a theater of operations without purchasing modern data communications equipment. Existing voice and message networks were not designed to support the high volume data communications that are inherent to the computer age.

The committee provided direction on this matter last year, as did the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) (ASD(C3I)), but no progress has been made in defining specific requirements, designing a solution, and developing a budget. The committee provides specific direction to DOD regarding an integrated data networking concept in another section of this report.

In other actions, the committee recommends additional funding for intelligence communications architecture development for the unified and specified commands, and requests a Defense Science Board investigation of new approaches to imagery processing and dissemination.

DIVISION A—DEPARTMENT OF DEFENSE AUTHORIZATION

TITLE I—PROCUREMENT

The recommendations of the committee for the procurement of various defense weapons and equipment appear in this title of the report.

EXPLANATION OF TABLES

The tables in this title display items requested by the administration for fiscal year 1992 for which the committee either increased or decreased the requested amounts. Items that are not displayed have been approved by the committee in the amounts requested in the Department of Defense's amended budget justification documents. As in the past, the administration may not exceed the amounts approved by the committee (as set forth in the tables or, if unchanged from the administration's request, as set forth in the Defense Department's amended budget justification documents), without a reprogramming action in accordance with established procedures.

LINE		FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
		Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
	ARMY PROCUREMENT CHANGES												
	AIRCRAFT PROCUREMENT												
6	AH-64 ATTACK HELICOPTER (APACHE) (MYP)		142,066		-4,000		138,066		142,135				142,135
16	AH-64 MODS		82,771		1,000		83,771		54,013		68,000		122,013
34	AIRCRAFT SURVIVABILITY EQUIPMENT		48,035		1,500		49,535		71,650		3,000		74,650
	DBOF-DIRECT FUNDING DCAA/DCMC										-18,500		-18,500
	TOTAL AIRCRAFT PROCUREMENT CHANGES				-1,500						52,500		
	MISSILE PROCUREMENT												
13	MLRS ROCKET		2,111	2,000	30,000	2,000	32,111		2,217	24,000	135,800	24,000	138,017
15	MLRS LAUNCHER	43	178,233		-24,500	43	153,733	34	169,615	10	29,400	44	199,015
25	MODIFICATIONS LESS THAN $2.0M		2,500		1,029		3,529						
	DBOF-DIRECT FUNDING DCAA/DCMC										-20,100		-20,100
	TOTAL MISSILE PROCUREMENT CHANGES				6,529						145,100		
	WEAPONS & TRACKED COMBAT VEHICLES												
1	BRADLEY FIGHTING VEHICLE FAMILY (MYP)		109,104				109,104		107,615		200,000		307,615
5	ARMORED GUN SYSTEM (AGS)				15,000		15,000		4,918		25,000		29,918
8	M1 ABRAMS TANK SERIES (MYP)		43,744	60	46,300	60	90,044		27,919				27,919
9	BFVS SERIES (MOD)		186,494		-75,000		110,494		36,703		75,000		110,703
10	HOWITZER, MED SP FT 155MM M109 SER(MOD)		161,606		-31,600		130,006		133,181				133,181
13	M1 ABRAMS TANK (MOD)		79,664		225,000		304,664		26,112		400,000		426,112
18	PRODUCTION BASE SUPPORT (TCV-WTCV)		73,287		-10,300		62,987		52,147				52,147
24	GRENADE LAUNCHER, AUTO, 40MM, MK19-3			1,066	16,600	1,066	16,600			1,500	25,000	1,500	25,000
	DBOF DENY MILCON CAPITAL BUDGET				-1,100		-1,100				-100		-100
	DBOF TECHNICAL CORRECTION				-1,700		-1,700				-700		-700
	DBOF-DIRECT FUNDING DCAA/DCMC										-8,400		-8,400
	TOTAL PROCUREMENT OF W&TCV CHANGES				183,200						715,800		

LINE	FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
	Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
ARMY PROCUREMENT CHANGES												
AMMUNITION												
9 CTG, 20MM, ALL TYPES		10,611		5,000		15,611		11,351				11,351
10 CTG, 25MM, ALL TYPES		40,652	1,522	67,500	1,522	108,152		32,591				32,591
11 CTG, 30MM, ALL TYPES				5,000		5,000						
15 CTG, MORTAR, 120MM, HEMO, XM934			108	37,000	108	37,000	18	6,180			18	6,180
25 CTG, TANK, 120MM, TP-T, M831	39	31,387	48	46,300	87	77,687	57	48,052			57	48,052
26 CTG, TANK, 120MM, TPCSDS-T, M865	176	111,627	83	52,600	259	164,227	177	115,635			177	115,635
44 FUZE, ARTILLERY, ELEC TIME, M762				20,500		20,500						
52 ROCKET, HYDRA 70, ALL TYPES				39,000		39,000		36,427				36,427
69 PROVISION OF INDUSTRIAL FACILITIES		74,923		1,500		76,423		69,310				69,310
74 CONVENTIONAL AMMO DEMILITARIZATION		24,000		5,000		29,000		19,000				19,000
TOTAL AMMUNITION CHANGES				279,400								
OTHER PROCUREMENT												
1 TACTICAL TRAILERS/DOLLY SETS		8,311				8,311		28,467		24,000		52,467
6 FAMILY OF MEDIUM TACTICAL VEH (MYP)	1,815	161,028	1,085	85,000	2,900	246,028	3,288	291,101			3,288	291,101
7 HEAVY EQUIPMENT TRANSPORTER SYS		182,859		-182,859								
12 PASSENGER CARRYING VEHICLES	453	7,184	-228	-3,600	225	3,584	38	2,181			38	2,181
36 ARMY DATA DISTRIBUTION SYSTEM (ADDS)		17,199		27,000		44,199		26,975				26,975
43 MOD OF IN-SVC EQUIP (EAC COMM)		16,209		-4,000		12,209		35,457				35,457
58 INFORMATION SYSTEMS		55,372		-3,000		52,372		47,554				47,554
63 GENERAL DEFENSE INTELL. PROG. (GDIP)		43,188		-11,700		31,488		31,591				31,591
67 HF COMINT COLLECTOR (TIARA)		6,000		-6,000								
95 MANEUVER CONTROL SYSTEM (MCS)		45,942		-37,900		8,042		43,302				43,902
97 AUTOMATED DATA PROCESSING EQUIP		75,278		40,000		115,278		88,154				88,154
105 TMDE MODERNIZATION (TMOD)		19,794		-10,000		9,794		16,203				16,203
113 SPECIAL PROGRAMS		69,340		-47,200		22,140		53,782				53,782
134 LAUNDRY UNIT/TRL MTD	85	6,000	45	3,000	130	9,000						
152 WATER PURIF UNIT REV OS 3000 GPH	42	16,698	-42	-16,698			32	12,906			32	12,906
170 GENERATORS AND ASSOCIATED EQUIP		73,804		-28,000		45,804		51,185				51,185
177 TRAINING DEVICES, NONSYSTEM		104,926		-20,000		84,926		98,564				98,564
177a TRAINING DEVICES, NONSYSTEM PY FUNDS				-10,000		-10,000						
DBOF DENY MILCON CAPITAL BUDGET				-1,100		-1,100				-100		-100
DBOF TECHNICAL CORRECTION				62,900		62,900				46,300		46,300
DBOF-DIRECT FUNDING DCAA/DCMC										-49,900		-49,900
ARMY SHELTER FAMILY				15,000		15,000						
TOTAL OTHER PROCUREMENT CHANGES				-149,157						20,300		

AH-64 HELICOPTER MODERNIZATION

The fiscal year 1992 amended budget request contained $82.8 million for AH-64A helicopter upgrades, of which $76.0 million was designated for a series of modifications to improve the performance of the AH-64. The Army designated this improved model as an AH-64B. Last year, Congress directed the Secretary of the Army to implement a comprehensive modernization program to address AH-64A reliability, with special emphasis on a block upgrade program.

The committee has serious reservations about the Army plan as originally submitted with the budget request. That plan failed to structure the modification program as a logical stepping stone to the Longbow program, and did not include fixes to problems identified in Operation Desert Shield/Desert Storm.

In recent weeks, the Army has restructured the proposed program to address these concerns. This plan would convert 254 AH-64A model aircraft into a new AH-64B configuration which includes the requested upgrades as well as important corrections identified in Operation Desert Shield/Desert Storm. The remaining AH-64 aircraft would be converted into a fully integrated C/D configuration through a service life extension program. The D model would be identical to the C model, except that it would include the Longbow radar and improved engines.

The committee believes this revised program is logical and affordable. In order to implement this revised program on a prompt basis, the committee recommends an additional $32.0 million in fiscal year 1992 ($31.0 million in R&D and $1.0 million in procurement) and $89.0 million in fiscal year 1993 ($21.0 million in R&D and $68.0 million in procurement), and directs the Secretary of the Army to budget sufficient resources to continue this initiative.

AIRCRAFT SURVIVABILITY EQUIPMENT

The committee understands that the Navy and the Marine Corps utilized the MJU-27 decoy effectively in the Persian Gulf war. The committee further understands that Army helicopters do not have this system. The committee believes the Army should add this capability and recommends $1.5 million for that purpose.

STINGER AIR DEFENSE MISSILE

The amended budget request contained no funds for further production of Stinger air defense missiles. The Army Acquisition Executive noted his concern over the potential loss of the manufacturing base for this critical missile.

At the present time, the Army has two producers for the Stinger missile, though the second-source producer has had substantial difficulties in producing qualified missiles. The committee understands that a backlog of over 3,000 missiles that was authorized and appropriated in prior years has yet to be awarded to the second-source producer because of performance problems.

The committee questions the wisdom of sustaining a dubious competition for Stinger missiles, while the overall industrial base for this important missile is in jeopardy. The committee believes the Army should reassess the current acquisition plan and consider terminating the competition and concentrating all remaining available funds on a single producer. This will give the Army time to reevaluate and adjust its plans for preserving the industrial base for the Stinger missile.

MULTIPLE LAUNCH ROCKET SYSTEM

The amended budget request would terminate further production of MLRS rockets and procure 43 launchers in fiscal year 1992. The amended budget request was developed independently of the Operation Desert Shield/Desert Storm Supplemental Appropriations Bill for Fiscal Year 1991, which added funds to replace approximately 20,000 rockets expended during the Persian Gulf war. Those rockets could be procured under the existing multiyear contract, except that the committee understands that the funds available to the Defense Department are not sufficient to preserve options in the multiyear contract. Consequently, the committee recommends an additional $30.0 million in fiscal year 1992, with $15.0 million required to maintain production under the current multiyear contract and $15.0 million to buy 2,000 additional rockets.

The committee also understands that the budget submission for MLRS launchers presumed no rocket production. The Operation Desert Storm replenishment rockets result in an estimated $24.5 million savings in launcher production costs.

The committee also recommends an increase of $165.0 million in fiscal year 1993 for rockets and launchers to preserve the current multiyear contract.

DRAGON MODIFICATIONS

The committee understands that the Army lacks the funds to install 1,815 Dragon II retrofit kits, which have been procured in previous years. The committee, therefore, recommends an authorization of $1.0 million to install these kits in order to complete the Dragon II program.

PATRIOT AIR DEFENSE MISSILE

The amended budget request contained no funds to continue production of Patriot air defense missiles. The committee understands that the acceleration of production activity during Operation Desert Shield/Desert Storm has left a potential gap in production between the delivery of missiles currently on order and the manufacture of missiles for foreign military sales.

In order to mitigate the risk of this gap to this important part of the industrial base, the committee recommends an authorization of $200.0 million to procure 300 Patriot missiles. Because the committee understands that this gap was created by Operation Desert Shield/Desert Storm, the committee recommends a provision that would authorize the disbursement of funds from the Defense Cooperation Account to cover the purchase of these missiles.

The committee notes that the Army is improving the performance of the Patriot missile, including modifications that improve the sensitivity of the seeker. The committee encourages the Army to introduce the improvements that can be prudently incorporated in these missiles when they are produced.

M1 TANK PROGRAM

Last year, Congress directed the Army to initiate a program to modify older model M1 tanks into the M1A2 configuration. Congress made that decision for two reasons. First, over half of the existing inventory of M1 tanks consists of the first generation M1s. The fact that the Army removed those tanks from the 24th Infantry Division (Mechanized) and replaced them with M1A1s testifies to the need to upgrade the older model M1s in Army inventories.

Second, a major modification program would substantially preserve the tank industrial base. The Joint Military Net Assessment concluded this spring that the tank industrial base, along with other key industrial elements, could "shrink to unacceptably low levels" without corrective action. The absence of commercial parallels to tanks means that ceasing procurement of M1 tanks also terminates the tank industry. Congress concluded last year that such an outcome was unacceptable.

The committee is disappointed that the Defense Department has disregarded Congress's directive in 1990. The committee reiterates its commitment to a tank upgrade program and directs the Department to proceed immediately with the program. The committee recommends $225.0 million in advance procurement funds and a provision in the bill (sec. 111) that would prohibit the obligation of these funds for any other purpose.

The committee also notes that the Department's failure to proceed expeditiously with the upgrade program will result in a gap in production between the 62 M1A2s in the fiscal year 1991 request and the modification program. The committee understands that this gap unnecessarily increases the cost of the 62 tanks, the sales to foreign countries, and the conversion program itself.

While the Army does not need to buy more M1 tanks in light of its shrinking force structure, the committee notes that the Marine Corps does need at least 60 more M1 tanks to meet its minimum requirements. The Marine Corps is not buying the M1A2 tank, however. Therefore, if Marine Corps requirements are to be satisfied, it is necessary to buy 60 M1A2 tanks for the Army and have the Army transfer 60 M1A1 tanks to the Marine Corps.

Consequently, in order to avoid the unnecessary increases in costs and meet Marine Corps requirements, the committee recommends an authorization of $90.0 million in fiscal year 1992 to produce 60 M1A2 tanks. These funds, in combination with the $150.0 million in advance procurement funds provided last year, are sufficient to produce 60 M1A2 tanks. As these tanks are delivered to the Army, the Army is directed to transfer 60 M1A1 tanks to the Marine Corps.

While the committee strongly supports the tank re-manufacture program to convert older M1 tanks to the M1A2 configuration, estimates for unit cost, annual costs, and total program costs have raised serious concerns. The committee questions whether annual program costs exceeding $500.0 million, and total program costs exceeding $4.0 billion, are affordable.

The committee believes the Army must evaluate fundamentally different manufacturing methods in order to eliminate overhead costs. The program executive office for armor systems is encouraged to assemble a panel of manufacturing experts, including experts from other industries, to examine alternative manufacturing methods that would make the tank modification program more affordable.

M2 FIGHTING VEHICLE

Last year, the committee expressed reservations about the Army's plan to terminate production of the M2 fighting vehicle. The committee noted that the Army's inventory of M2s falls well short of minimum requirements.

The committee also expressed serious reservations about the Army's plan to use high mobility multipurpose wheeled vehicles (HMMWVs) instead of M2s in scout platoons of tank and mechanized infantry battalions. The committee notes that Army units in Operation Desert Storm have strongly recommended that M2s be retained in the scout mission because of its armor protection against artillery, its effective night optics system, and its TOW and 25 millimeter cannon systems for suppressive fire.

The committee restates its belief that it is unwise to terminate production of M2s until minimum acquisition requirements are met. The committee also notes that the M2 production facility will support Army procurement objectives for several important new systems, including the multiple launch rocket system launcher (MLRS), the line of sight-forward-heavy air defense system, and the line of sight anti-tank (LOSAT) system.

Therefore, the committee recommends that the Army keep the M2 in production and recommends an increase of $200.0 million in fiscal year 1993 to continue M2 production through fiscal year 1993.

ARMORED GUN SYSTEM

The Army has requested funds to pursue development of an Armored Gun System (AGS) based on a modified non-developmental item acquisition approach. The committee supports the Army's decision to field an AGS with minimal use of development funds.

The committee notes that the Marine Corps has a parallel program to field a 105mm gun on the Light Armored Vehicle (LAV). However, the Marine Corps has postponed the program indefinitely because it lacks sufficient funds to proceed.

The committee is convinced there are substantial opportunities for commonality by utilizing the LAV-105 turret on the Army's Armored Gun System. Continuing development of the LAV-105 turret would carry forward the Marine Corps program, provide the ordnance system for the AGS, and provide maximum commonality across Service lines consistent with Service-unique requirements.

Consequently, the committee recommends an authorization of $15.0 million to initiate facilitization of the EX-35 gun at the Watervliet Army Arsenal. Further, the committee directs that the Army designate the EX-35 gun as government furnished equipment, and an appropriately modified LAV-105 turret as a mandatory component for the Armored Gun System. The committee supports the Army's acquisition plan to place as much management responsibility as possible on the prime contractor. The committee encourages the Army to conduct a fair and open competition for a system integrator for the AGS utilizing an appropriately modified LAV-105 turret system.

None of the funds may be used to initiate facilitization of the cannon, however, until the Secretary of the Navy certifies that the amended fiscal year 1993 Future Year Defense Plan and extended planning annex have sufficient funds to procure the Marine Corps' inventory objective for the LAV-105.

BRADLEY FIGHTING VEHICLE MODIFICATIONS

The amended budget request included $185.5 million in fiscal year 1992 and $35.7 million in fiscal year 1993 to improve the survivability of Bradley fighting vehicles. While this program has merit, it also has an unrealistic funding profile, with a sharp "funding spike" in fiscal year 1992 followed by a steep drop in fiscal year 1993. Such erratic budgeting will produce inefficiencies that can be avoided. Consequently, the committee recommends a level funding profile with an authorization of $110.5 million in fiscal year 1992 and $110.7 million in fiscal year 1993.

The committee is aware of several modifications under consideration for the Bradley fighting vehicle based on lessons learned from Operation Desert Shield/Desert Storm. Reports made available to the committee indicate a strong preference for the addition of a laser range finder. The Army is encouraged to consider this modification under the Bradley fighting vehicle modification program.

MARK 19 AUTOMATIC GRENADE LAUNCHER

The amended budget request included no funds for the Mark 19 grenade launcher and would terminate production of this weapon system. Army units that fought in Operation Desert Shield/Desert Storm reported that the Mark 19 system was very effective and should be more widely fielded in the Army. The committee notes that less than half of the Army's inventory objectives would be met at current procurement levels. Consequently, the committee recommends $16.6 million in fiscal year 1992 and $25.0 million in fiscal year 1993 for continued production of Mark 19 grenade launchers.

ARMY AMMUNITION

The committee is increasingly concerned that funding cuts for conventional, level-of-effort ammunition jeopardize the existence of the ammunition production base in the United States.

The committee recommends increases of $277.9 million to the amended budget request for fiscal year 1992 for Army ammunition to meet annual training requirements and for selected priority sustainability rounds. These increases are summarized below:

Item:	*Dollars in millions*
120mm TK TP-T M831	+46.3
120mm TK TPCSDS-T M865	+52.6
120mm Mortar HE/HO	+37.0
30mm training ammunition	+5.0
25mm APFSDS-T M919	+56.0
25mm TP-T M793	+11.5
HYDRA 70 ALL TYPES	+39.0

20mm PIVADS	+5.0
Fuze, ET, M762	+22.0
Conventional ammo demilitarization	+5.0
Total	+277.9

The committee also authorizes an increase of $1.5 million for the Provision of Industrial Facilities program for safety-related projects at the Indiana Army Ammunition Plant.

The committee believes that the preservation and maintenance of the U.S. ammunition production base are essential to our nation's security. In the committee's view, the Defense Department should make every effort to maintain a robust research and development and production capability for ammunition within the United States. These research and development efforts should include resolution of red water issues that currently preclude TNT production in the United States.

The committee continues to endorse the Army's policy of maintaining two producers in the production base for all rounds containing depleted uranium penetrators.

Cornhusker Army Ammunition Plant

The committee remains concerned that the Army is not renewing business and storage leases at the Cornhusker Army Ammunition Plant (CAAP) located in Grand Island, Nebraska. The committee reaffirms, in the best interests of all concerned, its support for the Army to continue business and storage leases by individuals and businesses, to the extent remediation efforts will allow, until CAAP is ultimately disposed of by the federal government.

FAMILY OF MEDIUM TACTICAL VEHICLES

The Army is nearing completion of a competition to develop a new family of 2-½-ton and 5-ton trucks to replace its aging light and medium truck fleet. The committee understands that the Army's proposed funding level for the family of medium tactical vehicles (FMTV) was reduced in the budget review cycle, resulting in sharp increases in unit costs. No problems in the test program have required a deep reduction in FMTV funding.

The committee considers the FMTV an essential modernization effort and recommends an increase of $85.0 million for fiscal year 1992.

HEAVY EQUIPMENT TRANSPORTER SYSTEM

Operation Desert Shield/Desert Storm demonstrated the importance of heavy equipment transports. The Army spent the months of buildup to Operation Desert Storm requisitioning every available heavy equipment transport to move tanks and other heavy vehicles. Indeed, the Army actually utilized old Warsaw Pact transports during the operation. According to most reports, Operation Desert Shield/Desert Storm wore out most of the older transports in the Army, necessitating a replacement program.

The committee supports the Army's heavy equipment transporter system (HETS) program and believes the Army may need to buy more HETS than are currently in the approved program. The committee has been informed that the Defense Cooperation Account used to finance Operation Desert Shield/Desert Storm is likely to have residual funds. While the Army has not proposed to buy HETS from that fund, the committee believes that buying HETS to replace the ones worn out in Operation Desert Shield/Desert Storm is a justifiable expense of the operation. Consequently, the committee recommends a provision that would authorize the purchase of new HETS from the Defense Cooperation Account.

ARMY DATA DISTRIBUTION SYSTEM

The committee understands that the Army data distribution system (ADDS)/enhanced position location reporting system (EPLRS) has demonstrated substantial progress and is currently achieving schedule, cost, quality, and performance goals. The EPLRS system is scheduled for initial operational test and evaluation (IOTE) next year, but the Army will not have sufficient equipment to support a corps size test, which is required to fully evaluate the system. Also, the committee understands that the amended budget request for EPLRS is not high enough to prevent a break in production.

In order to avoid the production break and provide sufficient numbers of terminals to support the IOTE, the committee recommends an additional $27.0 million for fiscal year 1992.

TRACKWOLF

The amended budget request included $6.0 million for fiscal year 1992 to procure a deployable, high-frequency direction-finding (HF/DF) system. The committee fully supports the concept of a deployable HF/DF system and notes that HF/DF capabilities were extremely limited in the Persian Gulf conflict. The committee furthermore believes that HF/DF capabilities are very useful in contingency operations.

However, the proposed Trackwolf system is far too large and cumbersome to be considered deployable for contingency operations. The committee directs the Army to develop an alternative design in cooperation with the tactical cryptologic program (TCP). The TCP program manager also is directed to examine ways to integrate operationally the HF/DF capabilities of the Army, Navy, and Air Force.

MANEUVER CONTROL SYSTEM

The amended budget request contained $45.9 million to procure and upgrade computer hardware for the maneuver control system (MCS). The MCS helps battlefield commanders and their staffs command and control maneuver forces. Because of a compressed test schedule and a delay in the projected delivery of MCS software, the committee understands that the Army will not be able to fully execute the program in fiscal year 1992. Consequently, the committee denies the request to procure common hardware, but recommends $8.0 million to upgrade existing tactical computer processors and an additional $5.0 million in R&D funds to compensate for testing delays.

SUSTAINING BASE INFORMATION SERVICES

Last year, Congress strongly endorsed the Department of Defense-sponsored corporate information management initiative. This initiative is designed to rationalize and standardize day-to-day automatic data processing for the entire Department of Defense. The Army has taken the lead to address the concerns raised last year. It included $9.2 million in the amended budget request to procure computer systems for the sustaining base information services (SBIS) program. This program will replace non-tactical computer systems with common hardware and software within an open systems architecture. According to Army analysis, accelerating the SBIS program will yield operations and maintenance savings in fiscal year 1993. Because the committee believes the SBIS program could serve as a model for the Department of Defense, the committee recommends $49.2 million to accelerate fielding of the program.

NON-SYSTEM TRAINING DEVICES

The amended budget request included $104.9 million for several non-system training device programs. The committee recommends cuts in two of these programs: the tank weapons gunnery simulation system/precision gunnery system (TWGSS/PGS) and the GUARDFIST I program.

The Army plans to use the TWGSS/PGS to train tank and infantry fighting vehicle gunners. Because the contractor could not execute the TWGSS/PGS contract, the Army terminated the contract earlier this year. As a result, the committee recommends a cut of $10.0 million in prior year funding. For fiscal year 1992, the amended budget request contained $30.0 million for the TWGSS/PGS, but the Army has indicated that it intends to restructure the program. The committee believes that there is a valid requirement for the TWGSS/PGS and, subsequently, authorizes $15.0 million in fiscal year 1992 for the restructured program.

The GUARDFIST I training device is designed to train National Guard tank crews at National Guard armories. The committee has learned that the Army does not need the full budget request to execute the fiscal year 1992 program. The committee recommends a cut of $5.0 million.

MOBILE SHELTERS

The committee is concerned that Army requirements for mobile shelters lack visibility. These shelters are used for housing transportable systems. In general, they are procured on a decentralized basis by separate program offices throughout the Army. Since there is little overall coordination in the procurement of shelters, industry has found it difficult to make long-term plans, and the Army is losing potential opportunities to save funds by coordinated purchases.

The committee understands that the Army now has a program manager to coordinate procurement of shelters. In order to promote a stable, long-term procurement strategy, the committee establishes an "Army Shelter Family" procurement line and recommends $15.0 million for that purpose. The committee expects the

Army to budget shelters in the future through this consolidated acquisition approach.

LINE		FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
		Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
	NAVY PROCUREMENT CHANGES												
	AIRCRAFT PROCUREMENT												
11	CH/MH-53E (HELICOPTER) SUPER STALL	20	454,700	-4	-115,000	16	339,700	20	459,499	-4	-120,000	16	339,499
12	CH-53 ADVANCE PROCUREMENT (CY)		54,128		-14,000		40,128		50,000		-14,000		36,000
33a	AV-8B REMANUFACTURE				65,000		65,000				50,000		50,000
45	H-2 SERIES		108,202		5,000		113,202		107,235		27,000		134,235
47	EP-3 SERIES		18,486		15,000		33,486		34,054				34,054
55	E-6 SERIES		19,523		38,300		57,823		41,476		40,900		82,376
59	COMMON ECM EQUIPMENT		101,414		15,000		116,414		126,806				126,806
63a	COMMON GROUND EQUIPMENT PY SAVINGS				-38 000		-38,000						
	DBOF-DIRECT FUNDING DCAA/DCMC										-103,200		-103,200
	DBOF DENY MILCON CAPITAL BUDGET				-5,300		-5,300				-400		-400
	TOTAL AIRCRAFT PROCUREMENT CHANGES				-34,000						-119,700		
	WEAPONS PROCUREMENT												
2	TRIDENT II	28	977,353	21	229,700	49	1,207,053	31	1,037,675	14	187,700	45	1,225,375
21	SPARROW MODS		53,258		-23,000		30,258		92,651				92,651
27	WEAPONS INDUSTRIAL FACILITIES		31,575		13,200		44,775		30,182				30,182
60	MACHINE GUN AMMUNITION		8,196		23,500		31,696		10,726				10,726
66	CIWS AMMUNITION		12,023		10,000		22,023		15,757				15,757
	DBOF-DIRECT FUNDING DCAA/DCMC										-70,200		-70,200
	TOTAL WEAPONS PROCUREMENT CHANGES				253,400						117,500		

LINE	FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
	Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
NAVY PROCUREMENT CHANGES												
SHIPBUILDING												
5 SSN-21	1	1,527,725		-100,000	1	1,427,725	1	1,685,674		-100,000	1	1,585,674
9 DDG-51	5	4,165,105		-55,000	5	4,110,105	4	3,479,486			4	3,479,486
15 MHC MINE HUNTER COASTAL	2	231,096	1	130,000	3	361,096	2	222,170	1	130,000	3	352,170
21 SEALIFT				1,364,100		1,364,100		201,400		300,000		501,400
29 INFLATION FOR PRIOR YEARS PROGRAMS		524,900		-424,900		100,000						
PRIOR YEAR SHIPBUILDING FUNDS				-1,680,000		-1,680,000						
DBOF DENY MILCON CAPITAL BUDGET				-1,000		-1,000				-100		-100
TOTAL SHIPBUILDING & CONVERSION CHANGES				-766,800						329,900		
OTHER PROCUREMENT												
DBOF DENY MILCON CAPITAL BUDGET				-38,700		-38,700				-2,900		-2,900
50 AN/SPS-49		3,192		18,700		21,892		23,210		3,500		26,710
53 RADAR SUPPORT		10,057				10,057		7,595		3,000		10,595
102 AUTOMATIC CARRIER LANDING SYSTEM		37,524		-2,000		35,524		15,682				15,682
COMMO/ELECTRONICS PY SAVINGS				-135,000		-135,000						
181 AIR EXPENDABLE COUNTERMEASURES		65,033		5,000		70,033		55,039		10,000		65,039
190 METEOROLOGICAL EQUIPMENT		33,008		-3,400		29,608		29,868				29,868
206 MK-92 FIRE CONTROL SYSTEM		12,463	2	48,900	2	61,363		14,150	2	55,500	2	69,650
273 INTELLIGENCE SUPPORT EQUIPMENT		42,138		-1,300		40,838		57,738				57,738
277 ENVIRONMENTAL SUPPORT EQUIPMENT		13,417		10,000		23,417		24,422				24,422
DBOF-DIRECT FUNDING DCAA/DCMC										-99,900		-99,900
TOTAL OTHER PROCUREMENT CHANGES				-97,800						-30,800		

LINE		FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
		Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
	NAVY PROCUREMENT CHANGES												
	PROCUREMENT MARINE CORPS												
3	LINEAR CHARGES, ALL TYPES		6,420		7,000		13,420		7,750				7,750
5	40 MM, ALL TYPES		107,491		-45,333		62,158		36,606				36,606
12	120MM HEAT MP-T M830		36,143		-9,300		26,843						
13	120MM APFSDS-T M829E1		31,633		-23,600		8,033						
15	120 MM TP-T M831		5,092		-5,092								
23	FUZE, ET, XM762				20,000		20,000						
25	83 MM ROCKET HEAA (SMAW)				35,600		35,600						
26	LIGHT ANTI-ARMOR WEAPON		5,277		24,725		30,002						
27	25MM HEI-T		13,164		9,000		22,164		5,950				5,950
28	25MM, TP-T, M793		1,400		4,000		5,400		3,513				3,513
29	CTG 25MM APDST		3,737		3,000		6,737		1,200				1,200
46	AAWS-MEDIUM		3,963		-3,963			434	39,639	-434	-35,639		4,000
46a	MLRS LAUNCHERS				23,000		23,000				46,000		46,000
46b	MLRS ROCKETS				72,300		72,300				86,000		86,000
60	ELECTRONIC TEST EQUIP (TEL)		9,041		-4,000		5,041		7,027				7,027
70	SENIOR WARRIOR	1	27,600	-1	-27,600								
70a	JSTARS TERMINALS				17,600		17,600						
70b	TACTICAL GROUND INTERCEPT FACILITY				15,000		15,000						
70c	COMMANDERS TACTICAL TERMINAL-HYBRID				4,200		4,200						
70d	COMMANDERS TACTICAL TERMINAL-RECEIVE ONLY				4,800		4,800						
70e	TACTICAL RECONNAISSANCE INITIATIVES				3,000		3,000				5,000		5,000
78	NIGHT VISION EQUIPMENT		9,491		35,000		44,491		14,487		35,000		49,487
	DBOF-DIRECT FUNDING DCAA/DCMC										-9,500		-9,500
	MARITIME PREPOSITIONING EQUIPMENT				550,000		550,000						
119	SPARES AND REPAIR PARTS-MC		82,191		-10,000		72,191		69,574				69,574
	TOTAL MARINE CORPS CHANGES				699,337						126,861		

CH/MH-53E SUPER STALLION AIRCRAFT

The administration requested a total of $508.8 million for the CH/MH-53E program. The Defense Department has indicated that 16 of these helicopters would be CH-53E aircraft to be used for filling the Marine Corps' requirement for heavy lift. The remaining four helicopters would be MH-53E mine countermeasures helicopters.

Last year, the committee directed the Department of the Navy to assess the requirements for Marine Corps heavy lift in conjunction with the fiscal year 1992/1993 budget request. The Navy has submitted that assessment and has funded 48 aircraft of the total requirement to buy 66 more CH-53 helicopters.

The committee recommends funds for procurement of 16 CH-53E aircraft for fiscal years 1992 and 1993. The committee recognizes that there are urgent requirements for the four MH-53 mine warfare helicopters, and has funded those elsewhere as a part of the National Guard and Reserve procurement initiatives.

T-45 TRAINING SYSTEM

The amended budget request contained $322.5 million for procurement of 12 T-45 training aircraft in fiscal year 1992 and for advance procurement of 12 additional aircraft in fiscal year 1993.

Last year, Congress authorized $21.8 million to accelerate the introduction of a digital cockpit, known as "Cockpit 21," to the T-45 aircraft. Those funds were not appropriated. In preparing this year's budget request, the Navy deferred introduction of cockpit 21 T-45 aircraft until 1996.

The committee has serious reservations about this approach. Deferring the cockpit upgrade until so late in the production run risks the upgrade itself since so few aircraft would remain to be fitted with the upgraded cockpit. While it is possible to retrofit the digital cockpit, the cost of the program would be substantially greater.

The committee believes that the cockpit 21 upgrade should be incorporated as soon as possible, and not later than fiscal year 1994. The committee encourages the Navy to incorporate the cockpit 21 upgrades as rapidly as possible, consistent with sound acquisition practices.

A-6 MODIFICATIONS

The amended budget request proposed the use of unexpended funds from the A-12 aircraft program to expand the A-6 aircraft re-wing and modification programs. The committee supports that transfer.

In addition to the funds earmarked for re-winging, the amended budget request also includes funds for night vision upgrades, safety and readiness, terrain avoidance/warning, weapons integration, and several other upgrade programs contained under the so-called "Block I" program.

The committee notes that the Navy will have to rely on the aging A-6 for many years in light of termination of the A-12. The committee understands that this will necessitate a top-to-bottom review of the A-6 to make sure the system remains combat effective. The committee is aware of the availability of a radar enhancement capability which could be incorporated under the Block I package.

The committee recognizes the fiscal limitations with which the Navy has constituted this modernization effort; however, the committee also believes that should a radar enhancement program prove worthy of incorporation, that it would be facilitated by provisioning for possible subsequent installation during the maintenance period scheduled for Block I.

Accordingly, the committee directs the Secretary of the Navy to perform an engineering analysis of the proposed radar upgrade, and, should funds become available through cost savings in the composite re-wing effort, provide provisioning of the A-6 aircraft undergoing Block I upgrades for subsequent radar upgrades.

AV-8B REMANUFACTURING

Operations during the recent conflict in the Persian Gulf showed that fighting at night and during other periods of reduced visibility gives our troops a considerable edge.

The Marine Corps' Harrier aircraft apparently performed well, but improvements could be made in its night fighting and self defense capability. Also, three different versions of the aircraft engines and other variations in the aircraft result in maintenance problems.

The committee is aware that any replacement for this primary close air support aircraft for the Marine Corps will be many years from production, under even the most optimistic assumptions. Extending the AV-8B's service life, upgrading its capability, and achieving a common aircraft configuration are prudent ways to maintain the Marine Corps' close air support forces.

Therefore, the committee recommends $65.0 million for fiscal year 1992 which, with $40.0 million available from fiscal year 1991 AV-8B funds, can be used to remanufacture two crash-damaged AV-8B aircraft to the newest configuration, extend their service lives, and verify claims about the remanufacturing process.

RADAR WARNING RECEIVERS

One of the lessons rendered by recent combat experience in Operation Desert Shield/Desert Storm was the unreliability of radar warning in certain Navy and Marine Corps aircraft. Specifically, the current ALR-67 radar warning receiver (RWR) installed in the F/A-18 aircraft was widely considered inadequate. By contrast, the Air Force's ALR-56 was considered reliable and effective.

The committee understands the Navy is developing a modification to the ALR-67 to address its shortcomings. The committee is not prepared, however, to support a prolonged effort to fix the ALR-67 when it could procure the ALR-56. The committee directs the Navy to accelerate incorporation of an improved radar warning receiver, and recommends an authorization of an additional $15.0 million to procure either ALR-56s or upgrade kits for the ALR-67.

H-2 MODIFICATIONS

The committee believes that programs that will help solve the Navy's and Marine Corps' mine countermeasures problem deserve the highest priority. The committee recommends funds for completing operational testing of the Magic Lantern system in the Navy's research and development account. Therefore, the committee recommends $5.0 million for fiscal year 1992 and $27.0 million for fiscal year 1993 leading to purchase and installation of six Magic Lantern systems, subject to the system's successful performance in operational testing.

EP-3 MODIFICATIONS

The amended budget request included a total of $18.5 million in fiscal year 1992 and $34.1 million in fiscal year 1993 to procure and install various modifications in the EP-3 aircraft. The committee proposes an initiative to improve tactical intelligence available to Marine Corps units (discussed elsewhere in this report). The Navy has done an extremely poor job in disseminating intelligence in a timely manner to tactical force projection units in the Navy and Marine Crops. The EP-3 platform develops a significant amount of data, but currently has no way of transmitting the data quickly to the users. The committee recommends $15.0 million to install an integrated tactical data link capability to transmit the data to the ground forces.

E-6 TACAMO/EC-135

The Navy's Take Charge and Move Out (TACAMO) program is an airborne communications system that provides assured, survivable dissemination of emergency action messages from the National Command Authorities to strategic submarines. The Navy is nearing completion of an expensive modernization program, which includes changing from a turboprop EC-130 to a military version of the 707 jetliner called the E-6 and upgrading communications equipment.

The Armed Services Committee was instrumental in the early 1980s in securing funding and support for what was then a controversial TACAMO modernization effort. The committee's decision to support the program was based on a detailed and thorough analysis of mission requirements and life-cycle costs based on certain fundamental assumptions that related to the threat and the planned TACAMO operating concept.

In April 1991, the Navy submitted a reprogramming request of $85.5 million for the E-6 TACAMO system. This submission was the first notice the committee received of an impending cost overrun, even though DOD knew of the problem in June 1990. Another reprogramming of similar magnitude is expected in the future.

The first reprogramming would settle funding levels for the production option for the last seven aircraft and fund remaining work on the last five aircraft that have not been delivered to the government. The expected future reprogramming would fund increased costs for earlier production options.

The E-6 aircraft program now will cost substantially more than Congress was told when the program was originally justified. Since the decision to replace the existing TACAMO fleet with the new E-6 airframe hinged largely on a narrow life-cycle cost advantage for the E-6, these cost increases alter the initial rationale and cost analysis for the program. The committee notes also that current life-cycle cost estimates for the E-6 are almost twice as large as the original estimates even though flying hours will be cut in half. The committee views this development with dismay.

Furthermore, DOD has decided to stop continuous TACAMO patrol missions in light of changes in the threat, which alters another fundamental assumption that supported E-6 procurement as opposed to other options.

Moreover, halting continuous patrols reduces the number of TACAMO aircraft required for communications with the SSBN fleet. Thus, the government no longer requires all of the E-6s that were contemplated in the original program. The committee, therefore, cannot justify the reprogramming request to complete production on the E-6 fleet based on the previous TACAMO mission requirements. The committee does not believe the taxpayer should pay cost overruns for aircraft we no longer need.

However, a viable additional mission for the E-6 would justify an E-6 fleet of 16 aircraft. The mission would be to replace most of the fleet of EC-135s that is used for survivable command and control of theater and strategic nuclear forces. The EC-135s are very old versions of military 707s; the newest EC-135s were delivered in 1965.

With TACAMO's high-power transmitter, and using the revamped Milstar satellite system, up to 27 of the command post and relay aircraft that support the Strategic Air Command (SAC) and the U.S. Pacific, European, and Atlantic Commands could be retired and replaced by just three-to-five E-6s. This action would be consistent with the committee's direction to retire obsolete force structure as new equipment and capabilities are fielded.

The committee, therefore, approves $85.5 million to complete E-6 procurement based on an expanded E-6 mission. The committee directs that up to 27 of the 39 command post and relay aircraft be retired. The mission of these aircraft shall be assumed by the E-6 TACAMO. The Navy is directed to ensure that manning levels and spare parts inventories are adequate to support immediate resumption of continuous E-6 airborne operations for 30 days in a crisis. The Defense Department is also directed to reassess basing requirements for the E-6 in this new role. Specifically, the committee believes that the entire E-6 fleet or the E-6 aircraft performing the command and control mission could be based at SAC headquarters at Offutt Air Force Base and utilize the facilities vacated by retiring the EC-135s.

In terms of funding, the committee makes the following recommendations: The Defense Department is directed to retire about one-fourth of the EC-135 fleet in each of the next three years. Accordingly, the committee recommends a reduction of $9.0 million in fiscal year 1992 and $25.0 million in fiscal year 1993 from the amended budget request for EC-135 operations and maintenance. The Department refused to provide cost and schedule information in this area; therefore, the committee relied on its own analyses to derive these reductions and the transfers described below.

The committee recommends a transfer of $38.3 million in fiscal year 1992 and $40.9 million in fiscal year 1993 from the EC-135 program to the E-6 TACAMO program for the procurement of communications upgrades. These upgrades will permit the E-6 to assume the EC-135 strategic communications role.

Finally, the committee recommends that the request for $12.5 million for military construction at Offutt Air Force Base to expand EC-135 facilities be denied.

NAVY AVIATION FUNDS TRANSFER

With the termination of the A-12 aircraft program, the Navy had prior year funds available that could not otherwise be spent, and also had unfunded requirements associated with the termination, notably the need to re-wing more A-6 attack aircraft and procure additional F-18 aircraft. The amended budget request would transfer $851.6 million from fiscal year 1991 Research and Development, Navy funds to the Aircraft Procurement, Navy account. The committee supports the transfer and has recommended a provision that would authorize the transfer.

The committee also understands that $226.0 million of fiscal year 1991 funds remains available in the F-14 aircraft program. The committee directs that these funds shall be used for no other purpose than to shut down the F-14 production line and to support the transition of F-14 fleet maintenance and engineering support to the Navy.

TRIDENT II MISSILE PRODUCTION

The amended budget request for fiscal year 1992 contained $1,195.4 million for 28 Trident II (D-5) missiles, including $218.0 million for advance procurement of 31 missiles in fiscal year 1993. The request for fiscal year 1993 included $1,037.7 million for 31 missiles, and $223.0 million for advance procurement of 50 missiles in fiscal year 1994.

The committee notes with some concern the Navy's new production plans for the Trident II missile. The Navy now proposes to adopt a maximum production rate of 48 Trident II missiles per year, despite facilities that could produce 72 per year. This lower rate, while reducing annual procurement costs, increases the unit cost of each missile significantly, and requires that the production facility remain in operation into the next century. The committee believes that accelerating the production of the balance of the Trident II missiles can reduce the program "cost-to-go" by several billion dollars, through a combination of production efficiencies and reduced overhead from closing the program several years earlier.

The committee further notes that a large portion of the planned production in fiscal years 1992 and 1993 is for the British Trident program. Should the British Ministry of Defence reduce or stretch out its planned buy, as occurred last year, the unit production cost of Trident II missiles for the Navy will rise sharply.

Accordingly, the committee recommends the following authorizations for the Trident II missile:

— for fiscal year 1992, $1,425.1 million for procurement, including advance procurement; and

— for fiscal year 1993, $1,448.4 million for procurement, including advance procurement of not less than 48 missiles in fiscal year 1994.

The fiscal year 1992 funds assume the use of $70.6 million in prior-year Trident II funds and $56.7 million in prior-year funds for Strategic Missile Systems Equipment, both of which have been proposed as funding sources in pending reprogramming requests. The committee directs the Navy to allocate funds between procurement and advance procurement accounts so as to maximize the combined fiscal years 1992 and 1993 missile procurement. The committee believes the funds are adequate to procure 72 missiles each year (including the British orders).

The committee further directs the Navy to submit to the congressional defense committees for their consideration a report on the costs and savings that could be obtained through multi-year procurement of the balance of the missiles to be produced, at rates of 48, 60, and 72 missiles per year. The report should be submitted not later than March 1, 1992.

WEAPONS INDUSTRIAL FACILITIES

The committee recommends that $13.2 million be provided to continue the modernization of the Allegany Ballistics Laboratory, a government-owned, contractor-operated facility in West Virginia which currently produces propulsion units for Navy missiles.

MK-48 ADCAP TORPEDO (MYP)

The amended budget request proposed entering into a multiyear contract for the MK-48 ADCAP torpedo in fiscal year 1992. The committee finds that the savings projected for this important program are worth the additional advance procurement funds required in fiscal year 1992. Therefore, the committee recommends a provision that would allow the Secretary of the Navy to enter into such a contract.

CIWS AMMUNITION

The administration requested authorization for a total of $12.0 million and $15.8 million for close-in weapon system (CIWS) ammunition for fiscal years 1992 and 1993, respectively. The committee believes that improving the current inventory levels of CIWS ammunition is an urgent priority. Having enough of this ammunition is important for ship self-defense against missile threats, particularly for ships having no other form of self-protection.

The committee recommends $22.0 million for CIWS ammunition for fiscal year 1992, an increase of $10.0 million.

SHIPBUILDING ACQUISITION MANAGEMENT

The committee has noted with concern the great turbulence in recent years in funding prior year ship programs. One ship appropriated last year, a fast combat support ship (AOE), has been canceled to pay for cost growth in that and other programs. Some ship programs appear to be in better shape than others, but a "medical report" on the shipbuilding effort as a whole would put it on the "critical list." The General Accounting Office (GAO) has been reporting for several years that the Navy has created a business environment that encourages unrealistic bills for shipbuilding contracts. The emerging record of cost overruns suggests that the GAO is probably correct.

Elsewhere in this report, the committee has asked the Navy to conduct a "nuclear audit" of mine warfare programs. It may well be that the Secretary would want to subject the shipbuilding program to similar scrutiny. The Navy should not continue a system which rewards contractors who submit cost estimates that are unrealistically optimistic at the beginning. The old strategy of creating unnatural competition has led to unrealistic prices, lawsuits, and hostile relations between industry and government. An independent assessment of shipbuilding programs would specifically examine the effect of "buy in" strategies and the steps the Navy may take in a new acquisition strategy to avert the practice. The Navy should structure acquisitions that focus on criteria other than cost competition only.

Is anyone better off if we perpetuate an unrealistic and artificially competitive system which has resulted in "buy ins," and, ultimately, cost overruns which represent the efforts of suppliers to work prices up to real world levels? The committee believes that prices are important, but cost realism is just as important to the longer term interests of the Navy and the taxpayer. For example, some have suggested that the Navy should begin a program of rewarding prior performance and searching for "best value" on future contracts, rather than accepting only the low bid. The committee believes that the Navy should evaluate such a strategy and identify changes in laws and regulations that need to be made to improve the current system.

The committee heard some rather startling testimony from Congressional Budget Office witnesses that indicates that the Navy could be declining to a fleet size of as few as 310 ships if budget reductions and cost growth trends continue. Admittedly, some of the assumptions that result in such an outcome are pessimistic. Nevertheless, the Navy can ill afford to ignore the warning that such studies deliver—cost growth could price the Navy out of the business.

The committee believes that the Navy must make some fundamental choices as it moves into uncharted waters in which the Warsaw Pact is not the primary threat:

- Before shifting all of its focus to embarking on any new submarine or destroyer programs, the Navy should do everything possible to cut costs on existing programs. For example, the DDG–51 is the only combatant being bought in series production, but unit costs continue to grow in real terms. Could multiyear procurement or other initiatives yield additional savings or other benefits?
- The Navy will have to make hard choices in trading off capabilities to reflect a new environment before decision makers will be willing to make hard choices in favor of the Navy.

Specific committee concerns include:

- Avoiding "locked-in" top level requirements before trade-offs are investigated.
- Ensuring that the major new submarine and destroyer programs are given the benefit of the full rigor of passing the various milestone reviews.

The committee looks forward to hearing testimony on the progress the Navy is making in such a fundamental review of this critical set of acquisition programs.

"SEAWOLF" (SSN-21) CLASS SUBMARINE

The SSN-21 is designed to be the newest attack submarine incorporating the best survivability, quieting, and fire control technology available to the Navy. With the Navy's recent competition of the fiscal year 1991 SSN-21, it is clear that contract savings not reflected in the amended budget request are possible.

Therefore, the committee recommends $1,803.2 million in fiscal year 1992 and $2,061.1 million in fiscal year 1993 for one ship and advance procurement funds in each year, a reduction of $100.0 million in each year.

CV SLEP

Last year the Navy decided to perform an overhaul on the aircraft carrier U.S.S. *John F. Kennedy* (CV-67), rather than put the ship through a service life extension program (SLEP). The Department of Defense Appropriations Act for Fiscal Year 1991 earmarked $405.0 million only for materials and efforts leading to an industrial availability for CV-67 at Philadelphia Naval Shipyard. The Dire Emergency Supplemental Appropriations Act of 1991 prohibited using any DOD funds on any industrial availability of CV-67 other than for a service life extension at the Philadelphia Naval Shipyard.

The committee understands the concern of those who believe that the continued operation of the Philadelphia Naval Shipyard is intimately tied to continuing the SLEP program. The Defense Base Closure and Realignment Commission has made its recommendation to close the yard. Continuing the program will not keep the shipyard open, if the President and the Congress approve its closure. Discontinuing the program would not force the yard to close.

Based on the Navy's plans for maintaining aircraft carrier force levels, a SLEP of the CV-67 is not needed. The Navy plans to keep the CV-67 in service for about the same length of time that a SLEP would ostensibly provide. A complex overhaul in fiscal year 1993 would be all that is needed in the near term.

The committee does not believe that spending an additional $466.0 million on CV-67, the amount required to perform the SLEP in addition to $405.0 million already appropriated, would be a wise investment. The committee further believes that the funds already appropriated could be more usefully applied to correcting some of the deficiencies in sealift that were evident from the war in the Persian Gulf.

Therefore, the committee recommends a provision that would make these funds available for procurement of strategic sealift ships, subject to normal reprogramming procedures. The committee also recommends a provision that would allow the Navy to proceed with planning and execution of a complex overhaul of CV-67.

"ARLEIGH BURKE" (DDG-51) CLASS DESTROYERS

The amended budget request includes $4,181.3 million in fiscal year 1992 for five DDG-51 class destroyers. AEGIS ships will provide the Navy with the capability of combating the anti-ship missile threat.

The Navy's request for the five ships in fiscal year 1992 would add four electronics systems to the ship's combat system, collectively known as "Baseline 5." In previous years, the Navy has taken the cautious approach of including a major upgrade in only one of the ships in the first year of an upgrade. Of the four electronics systems which are added in Baseline 5, three involve relatively minor changes to the ship. The committee believes these deserve support (these include the AN/SLQ-32 V3, which is an active electronic countermeasures capability for jamming the radar seekers on anti-ship missiles). The fourth electronics system, Combat DF, is a direction finding system which would require more extensive changes to the ship. The committee believes that Combat DF should be installed on only one of the ships in fiscal year 1992, an action consistent with the Navy's successful past practice in introducing significant changes into AEGIS ship designs.

The committee recommends $4,126.3 million for construction of five *Arleigh Burke* (DDG-51) class destroyers, a reduction of $55.0 million from the amended budget request.

"OSPREY" (MHC-51) COASTAL MINEHUNTERS

The Navy has requested $231.1 million in fiscal year 1992 and $222.2 million in fiscal year 1993 to buy two coastal minehunters (MHC) in each year. The shipbuilding plan last year had included four and five ships in fiscal years 1992 and 1993, respectively.

The committee understands that the Navy is undertaking a fundamental review of mine and mine countermeasures programs in light of its experiences in Operation Desert Storm. The amended budget request showed that the Navy intended to transition to a new, larger variant of the MHC in fiscal year 1995. Information from the recent mine clearing operations in the Persian Gulf, however, has indicated that moving to a larger ship may not make sense.

One of the clear "lessons learned" from Operation Desert Storm was that the Navy is woefully short of mine countermeasures vessels. The committee understands that the amended budget request was presented to the Congress before the conclusion of Operation Desert Storm. Nevertheless, we should have learned several years ago, during Operation Earnest Will, that our mine countermeasures capabilities were inadequate.

While a case could have been made that our Navy could have relied on the NATO allies for mine sweeping in a global war, it is clear from the Persian Gulf operation that even when we get help from allied navies, we still have major difficulties in conducting operations in the face of a mine threat.

Even countries that are not major naval powers can obtain effective naval mines. Iraq sewed several hundred, relatively cheap mines that constrained the Navy's flexibility in conducting amphibious landings and shore fire support. Two of the mines also inflicted roughly $30 million in damage to two Navy vessels, U.S.S. *Princeton* and U.S.S. *Tripoli,* and sidelined U.S.S. *Princeton* for several months.

The committee therefore recommends $361.1 million for fiscal year 1992 and $352.2 million for fiscal year 1993 to purchase three coastal minehunters in each year. In addition to exploring innovations in mine countermeasures (discussed elsewhere in this report), the Navy clearly needs to increase the size of the mine countermeasures fleet.

MINE COUNTERMEASURES STUDIES

Achieving a mine countermeasures capability is essential to projecting naval power and ensuring that the Navy/Marine Corps team can support our vital interests in the future. The committee has urged the Navy repeatedly over many years to place greater emphasis on mine countermeasures. Twice in the past three years, the nation has called upon the Navy to employ mine countermeasures. With our recent experience with mine clearing in the Persian Gulf, it is clear that our nation's capability to mount credible mine countermeasures operations is highly suspect.

Over the past decade, problems have plagued mine countermeasures ship programs. Some people said, "These ships will be easy to build. Anyone can build wooden (or fiberglass) ships." However, building these ships has been anything but easy. The record shows that mine countermeasures ships are complex weapons systems. The committee believes that mine countermeasures ship programs deserve the same level of management attention that other complex weapon systems (such as destroyers or submarines) receive.

The Navy now intends to proceed with yet another mine countermeasures ship program within the next few years. Recent experience causes the committee concern about whether the Navy is launching a new program on the right course. Before proceeding further, the committee believes that the Navy should conduct a "nuclear audit" of its mine countermeasures capabilities and programs.

To this end, the committee requests the Chief of Naval Operations to review carefully the requirements for mine countermeasures. Until recently, Navy force structure planners relied on our NATO allies to perform the mine clearance mission. Even with a sizable allied contribution in the Persian Gulf, however, the Navy's Persian Gulf mine countermeasures operations were inadequate. There was even some evidence that other nations were using technology for mine countermeasures that was much better than ours. A clear, important Persian Gulf "lesson learned" for the rest of the world is that mine warfare can work well in thwarting the aims of a large coalition or even a superpower.

The Navy should carefully assess the implications for ship design of emerging airborne and unmanned underwater vehicle technology. With the availability of new tools, the tactics with which one approaches an old job may well be due for review. New tactics may require new ship concepts. The committee believes that the Chief of Naval Operations should conduct this assessment, but that he should be supported by an outside organization with adequate capability and standing. The committee believes that the National Academy of Sciences is such an organization that could conduct a major independent review of mine countermeasures programs and technologies to help in defining a new baseline for investment. In addition to recommendations for technology investment, the review should provide disinvestment recommendations, as well. The committee directs the Secretary of the Navy to commission such an effort by the Academy.

The committee expects to receive three reports from the Department of the Navy within 18 months of the date of enactment of this legislation:

1. a report from the Chief of Naval Operations integrating the requirements for mine countermeasures programs into the overall force structure plan for the Navy, including a technology development plan based on the work of the National Academy of Sciences;
2. a comprehensive review by the National Academy of Sciences of mine countermeasures programs and technologies to assist the Chief of Naval Operations in determining an investment as well as a disinvestment strategy; and
3. an independent assessment by the Secretary of the Navy of past and current mine countermeasures ship programs resulting from the "nuclear audit." If the Navy decides that a new mine countermeasures ship program is required, this report should include an acquisition strategy which clearly details how the Navy intends to avoid past mistakes highlighted in the independent assessment.

The committee's decisions over the next several years would be better informed if the results of these studies were available.

SEALIFT

Some of the lessons that were clear from Operation Desert Shield/Desert Storm were that sealift is still very important to any major deployment and that current sealift capability needs to be improved. The committee urges the Navy to be ready to issue shipbuilding contracts shortly after the Mobility Requirements Study results are available. The committee believes that this is an extremely important program.

The committee believes that improving sealift capability is clearly more important than spending funds on the carrier service life extension program (CV SLEP), discussed elsewhere in this report. The committee believes that the funds already appropriated for the CV SLEP could be more usefully applied to correcting some of the deficiencies in sealift that were evident from the deployment to the Persian Gulf.

Including funds added by the committee, $1,364.1 million will be authorized for sealift. The committee also recommends an additional authorization for sealift of $300.0 million in fiscal year 1993.

The committee expresses its concern that important second and third tier vendors not be ignored in the sealift acquisition program. Sizable sums of money will be spent in domestic shipyards over the next several years to add needed sealift capability and to protect the industrial base. Unless the Navy and the shipyards structure their programs to support the domestic subcontractor base, important capacity could be lost. The committee urges the Navy and the U.S. shipyards to structure the sealift programs to adequately consider domestic subcontractors.

LCAC LANDING CRAFT

The amended budget request included 12 LCAC air cushion landing craft. This would bring the total purchased to 84 LCACs, and would match an amphibious lift goal of three Marine Expeditionary Brigades, or MEBs. Last year, the Navy believed that this goal was appropriate, based on the study, "Integrated Amphibious Operations and USMC Air Support Requirements."

Now, however, the administration has set the lift goal at 2.5 MEBs. The committee believes that this change has been made precipitously and intends to review this matter thoroughly.

The committee recommends authorization of the requested funds, but requires the Secretary of Defense to submit a report on amphibious lift goals before these funds can be obligated.

SHIP ESCALATION FUNDING

The amended budget request includes $524.9 million in fiscal year 1992 to pay for changes in economic factors beyond the management control of the Navy. Because ships take many years to construct, there can be considerable uncertainty about inflation's effect on the price of a ship between its inclusion in the budget and its delivery to the Navy.

In the early 1980s, changes in the shipbuilding deflators worked to the Navy's favor. Contracts cost less than we had expected. In recent years, the situation has reversed. The committee understands the requirement to fulfill the government's obligations on current contracts.

The committee understands that this escalation estimate is based on a ship cost adjustment (SCA) completed during the spring of 1990. The Selected Acquisition Reports (SARs), based on data developed later in the year, show that the escalation factors on major ship programs are actually declining. Major economic indicators since the SARs show continued improvement. Therefore, the committee is reluctant to recommend authorizing more funds than are necessary.

The committee recommends authorization of $100.0 million for escalation on prior year shipbuilding programs in the fiscal year 1992 budget which should be adequate to cover funding requirements next fiscal year, pending completion of a new SCA report.

NEW DESIGN ATTACK SUBMARINE

The unit cost of the *Seawolf* (SSN-21) class submarine is now more than $2 billion and will increase to $2.5 billion in the years ahead. When this program was initiated, the Navy made several assumptions which are no longer valid: that increased resources would be available for the Navy shipbuilding program, that the annual construction rate for attack submarines would be higher, and that *Seawolf* unit costs would be lower.

In response to fiscal pressures, the Navy is now examining options for building an attack submarine design different from that of the *Seawolf*. The committee believes that this action should be conducted with great urgency. Fiscal constraints on the Defense Department will continue, and the high unit cost of the *Seawolf* precludes funding for multiple attack submarines and other necessary ships in each year's shipbuilding program.

The committee directs the Secretary of the Navy to prepare a report on the Navy's plan for developing the future (so-called Centurion) attack submarine design. The report shall identify the major issues which affect the design of that ship, and it shall identify a tentative schedule for R&D and procurement, leading to introduction of the new submarine into fleet operation. It shall also identify funding required in the Future Years Defense Plan. The report shall be submitted to the Committees on Armed Services and Appropriations of the Senate and the House of Representatives as soon as possible, but not later than one month after submission of the fiscal year 1993 amended budget request.

REVIEW OF STRATEGIC SEALIFT FUNDING

The Ready Reserve Force (RRF) is a group of ships which are maintained at varying levels of readiness to be ready for activation in times of emergency and manned by civilian crews. The RRF breakout during Operation Desert Shield was the first time a large numbers of these ships had ever been activated. One of the lessons of Desert Shield was the need to pay greater attention to the RRF and its status.

Until a few years ago, funding and management of the RRF were split: the Navy provided the money and the Maritime Administration (MarAd) maintained the ships in peacetime and provided the civilian crews upon activation. Then the administration, at the urging of Congress, consolidated these two responsibilities by transferring responsibility for RRF funding from the Navy to MarAd. Although the funds for this program were still assigned to the "National Defense" budget function (function 050), DOD responsibility for the RRF declined. In years when budget agreements did not protect MarAd's RRF funding from being transferred to other transportation activities, Congress has also cut the administration's budget request for procurement and maintenance of RRF ships.

Management of defense's other transportation systems has changed during the past year. One of the results of Operation Desert Shield/Desert Storm was increased centralization of responsibility for strategic transportation. The U.S. Transportation Command (TRANSCOM) now has more power over the Military Sealift Command, the Military Traffic Management Command, and the Military Airlift Command. This change could simplify transportation operations in future crises.

Congress may want to review the management and funding of the RRF. Testimony before the Projection Forces and Regional Defense Subcommittee this spring revealed one alternative, in which funding for the RRF (both procurement and O&M) would be assigned to a Defense Agencies account. DOD (or TRANSCOM) would then enter into a contract with the MarAd for the maintenance and exercise of RRF ships, and with either MarAd or the Navy for procurement of additional ships for the RRF.

The committee directs the Secretary of Defense to seek a review within the administration of funding and management of the RRF. The review should examine the assignment of management and funding responsibilities for the RRF that best support national defense transportation requirements. The Secretary of Defense should report on the status of this review as part of his next annual report to the Congress.

AN/SPS-49 RADAR

The SPS-49 radar is deployed on a large number of the Navy's ships, including AEGIS cruisers and FFG-7 class frigates. The Navy has been developing a medium pulse repetition frequency upgrade (MPU) as a part of a continuing program to improve radar systems in the fleet. The SPS-49 MPU program has demonstrated a doubling of range and other improvements in testing against representative targets that the Navy would face in possible Third World conflicts.

Elsewhere in this report, the committee describes a broad initiative for improving anti-air warfare (AAW) capability, which includes making improvements in existing systems. The committee believes that the SPS-49 MPU is an upgrade that is urgently required. The committee therefore recommends an additional $18.7 million in fiscal year 1992 and $3.5 million in fiscal year 1993 to accelerate fielding this important engineering change by two years.

AN/BPS-16 RADAR

The AN/BPS-16 is a submarine radar and mast which the Navy is putting aboard new *Ohio* and *Seawolf* class submarines. The Navy has evaluated this radar aboard *Los Angeles* class submarines. Early reports indicate that it can provide significant maintenance, cost, and performance advantages over the current BPS-15 system. The final report on this test aboard an SSN-688 class submarine will not be available until late August 1991.

The committee recommends an additional $3.0 million in fiscal year 1993 for procurement of this radar. The committee expects the administration to review this program prior to submitting an amended budget request for fiscal year 1993.

SONOBUOYS

The committee is concerned that for several years the Navy has relied upon Congress to add additional funds to buy the required sonobuoys. Last year, the committee recommended additional authorization for sonobuoys because purchases would not even replace peacetime expenditures. The committee once again indicates its desire that the Navy fully fund its sonobuoy requirements for wartime operations and peacetime training.

No additional authorization is recommended for sonobuoy production for fiscal year 1992, pending resolution of future antisubmarine warfare forces. However, given the discrepancy between past Navy sonobuoy budget requests and sonobuoy requirement levels, the committee needs enough information in the future on which to base its decisions concerning sonobuoys. The committee directs the Department of Defense to submit future budget requests in the same line item detail as has been provided in previous years. Also, the committee directs the Navy to explain fully in future budget support materials, sonobuoy requests that fall short of consumption levels expected for that fiscal year.

RAIL/PYLON DISPENSER SYSTEM

Hearings on Operation Desert Shield/Desert Storm revealed that most combat aircraft that flew missions over Iraq frequently expended all on-board chaff and flares. All five of the Navy F-18s that were damaged by Iraqi air defenses had expended all their chaff and flares.

The committee understands that the Navy has explored several methods of expanding on-board carriage of chaff and flares. One of the most direct and least disruptive approaches involves installing chaff and flare dispensers inside missile rails or weapon pylons. The committee believes this is a cost effective way of adding storage capacity while minimizing expensive modifications to Navy aircraft. Therefore, the committee recommends an authorization of $5.0 million in fiscal year 1992 and $10.0 million in fiscal year 1993 to initiate a rail/pylon dispenser system for chaff and flares.

MK-92 FIRE CONTROL SYSTEM

The Navy has 51 FFG-7 class frigates. Most of these ships were built with modest air defense capability. The Navy has been working on a number of improvements that were recently tested in an operational evaluation aboard the last ship of the class. The Commander, Operational Test and Evaluation Force (COMOPTEVFOR), has not released his final report on this testing. The previous technical evaluation testing, however, was very promising. If the operational testing results prove that the upgraded system works according to design, this will be an important improvement for this large portion of the Navy's fleet.

The committee recommends additional authorization of $48.9 million in fiscal year 1992 and $55.5 million in fiscal year 1993 to provide for production and installation of two MK-92 upgrades in each year, pending certification by COMOPTEVFOR that the system has successfully completed operational testing.

ENVIRONMENTAL SUPPORT EQUIPMENT

The Department of the Navy serves as the country's official timekeeper, with the master clock facility at the Washington Naval Observatory. The Navy also maintains the capability of measuring fluctuations in the earth's rotation very precisely using a very long baseline interferometry (VLBI) network located at four sites in the United States. In addition to other scientific uses, these two capabilities provide the data that makes the precise navigation and timing information available to the Global Positioning System (GPS) and to the targeting systems on our strategic missile systems. There is currently only a modest capability to maintain the precise time measurement standard in case of catastrophe at the primary site. There is, however, no complete alternate master clock facility. Maintaining the four VLBI locations is important as well. There is now an opportunity at one of these locations to establish an alternate master clock facility and upgrade the VLBI facility. This would take advantage of a recent upgrade of a National Science Foundation (NSF) facility, where the Navy is a tenant and NSF has recently made major improvements.

Therefore, the committee recommends an additional authorization of $10.0 million in fiscal year 1992 to provide equipment for the VLBI upgrade and an alternate master clock facility.

ENHANCED MODULAR SIGNAL PROCESSOR (EMSP)

The committee understands that the Navy intends to proceed with a multiyear procurement contract of the EMSP. Multiyear authority for the EMSP was not requested in the amended budget request because the Navy has just recently made this decision. The committee understands that the Navy intends to identify offsets from programs that would use the EMSP. These offsets will be adequate to provide the additional "economic order quantity" funds for an EMSP contract that consolidates all of the Navy's requirements. The committee has recommended a provision that would allow the Secretary of the Navy to enter into such a contract.

MARINE CORPS MODERNIZATION

Congressional testimony and after-action reports by members of the committee following visits to the Persian Gulf showed an imbalance of modernization between Army and Marine Corps ground combat forces. The Army operated with modern ground combat systems, e.g., M-1A1 Abrams tanks; Bradley Fighting Vehicles; Multiple Launch Rocket Systems (MLRS); AH-64 Apache, OH-58D AHIP, and UH-60 Blackhawk helicopters; and a wide proliferation of the latest generation of night vision equipment.

The Marine Corps, on the other hand, used less capable, older combat equipment, including M-60A1 tanks (which the Army National Guard has already phased out of its inventory); AH-1 Cobra helicopters; 8" howitzers (with about 2/3 the range and far less firepower than the MLRS); and smaller numbers of less capable night vision equipment.

Forces that the country expects to be among those "first to fight" should receive the highest priority for modernization. Marine Corps combat units and active Army contingency forces are the most likely to engage in combat in any foreseeable contingency operation. It is important that each have the most modern technology. This is particularly true because Congress has properly added billions of dollars each year to enhance the modernization of the Reserve components, and it is evident that this modernization paid-off in Operation Desert Shield/Desert Storm. It is also clear that, in some areas, even the Reserve components have more modern equipment than certain units in the Marine Corps.

The committee therefore recommends several initiatives described below to enhance the modernization of Marine Corps ground combat units. The committee directs the Department of the Navy to provide a report with the fiscal year 1993 amended budget request describing a five-year plan to alleviate shortcomings found in the Persian Gulf operation and to ensure that modernization in the Marine Corps is consistent with that in the other Services.

The Office of the Secretary of Defense must ensure full joint participation by the Marine Corps and the Army in the development and procurement of future ground combat systems.

Armor

The Marine Corps fought the ground war in Kuwait primarily with the M-60A1 tank, which has about the same night fighting capabilities and armor protection as the Iraqi tanks. Current Marine Corps plans to procure the M-1A1 tank have reduced the numbers to be procured from 506 to 215 for budgetary reasons. Having only 215 M-1A1 tanks will cause two specific shortages: (1) maritime prepositioning ships will have only two-thirds of the required number of tanks, and (2) training at the Twentynine Palms warfare center will be hampered because only a handful of M-1A1 tanks will be available.

The committee recommends funds for the Army to procure 60 M-1A2 tanks. As the Army receives these tanks, it will provide the Marines 60 M-1A1 tanks of the configuration common to the Marine Corps' M-1A1 tanks from the newest M-1A1 production units in the Army.

The Marine Corps light armored vehicle 105 program is intended to provide lightly armored, major caliber, direct fire suppressive capabilities to Marine Corps ground units. The committee recommends $15.0 million in the Army research and development account to develop the facilities for the EX-35 gun at the Watervleit Arsenal to support the LAV-105 program and the Army's armored gun system.

Night Fighting Capabilities

Enhancement of Marine Corps night fighting capabilities will require a consistent program of investment over several years in the latest generation of night vision devices. The committee recommends $35.0 million in fiscal year 1992 and $35.0 million in fiscal year 1993 for this effort. The committee expects the Marines to continue this level of investment until it attains capabilities comparable to that of the Army.

Briefings before the committee on Operation Desert Shield/Desert Storm revealed that the Marine Corps light armored vehicles (LAVs) lacked integrated night sights. The committee therefore recommends additional authorizations of $2.3 million and $3.5 million for fiscal years 1992 and 1993, respectively, for the ground combat/supporting arms systems program to accelerate the LAV product improvement program, including the development of an integrated night sight.

Artillery

The Marine Corps currently has no rocket artillery capability to provide deep, heavy, suppressive fires. Army multiple launch rocket systems (MLRS) supported Marine Corps units in the Persian Gulf War. Marine Corps planners have identified a requirement for 42 MLRS.

The committee recommends $23.0 million for nine self-propelled launcher loaders (SPLL) and $72.3 million for 10,000 rockets in fiscal year 1992, and $46.0 million for 18 SPLL and $86.0 million for 12,000 rockets in fiscal year 1993. The committee expects the Department of the Navy to program funds for procurement of 15 more SPLL and additional rockets in fiscal year 1994.

The Marine Corps, in cooperation with the Army's Armaments Research and Development and Engineering Center, has supported the evaluation of non-developmental lightweight 155mm howitzers, which would be capable of rates of fire and range comparable to that of the currently fielded M198 155mm howitzer but at approximately half the weight.

The committee believes that a lightweight 155mm artillery piece would contribute greatly to strategic and tactical mobility both in the Marine Corps and the Army and provide for greater artillery firepower for both heliborne and across-the-beach operations.

The committee recommends an additional authorization of $2.5 million and $9.8 million to continue the Marine Corps ground combat support program in fiscal years 1992 and 1993. The committee expects the Army and Marine Corps to establish a cooperative program for joint development and adaptation of a lightweight 155mm artillery piece.

In addition to this evaluation, the committee directs the Marine Corps and the Army to jointly examine the feasibility of a 155mm moritzer which would fire standard 155mm M864 and extended range ammunition. The committee is aware of an earlier effort by the Army to develop a 105mm moritzer, the XM193, a device with one-third the weight of an M102 and ranges of 9 kilometers.

The committee believes that the Marines and the Army should compare the moritzer concept with the lightweight 155mm howitzer in the search for a lightweight indirect fire weapon for both Services. The Services should complete this evaluation and provide a report to the Committees on Armed Services of the Senate and the House of Representatives by February 28, 1992.

Mine Detection and Clearance

Marine Corps plans for amphibious operations in the Persian Gulf were significantly and adversely affected by Iraqi mining operations of coastal waters as well as prospective assault beaches. Ground attacks into Kuwait by Marine Corps combat units involved extensive mine-clearing operations to breach the Iraqi barrier system. Mine clearing equipment used in these operations was primarily of World War II-era design, unsophisticated and, in some cases, borrowed from other Services and allies.

The Marine Corps, the Army, and the Navy should pay increased attention and apply greater resources to research and development programs to make mine clearing operations safer, more effective, and more efficient.

The committee recommends an additional $14.0 million for Magic Lantern airborne mine countermeasures to enhance the development of mine detection and clearing operations in coastal waters (described elsewhere in this report).

The committee is aware of progress in the joint unmanned vehicles (robotics) program, and the response of the program in supporting mine clearing applications during Operation Desert Storm. The committee recommends an additional $10.0 million in fiscal years 1992 and 1993 for the Joint Unmanned Ground Vehicle Program, (program element 63709D). The Defense Advanced Research Projects Agency should use these funds to conduct simulations and analyses of unmanned/robotic mine clearing and reconnaissance applications, and to perform research in robotic techniques for identification, labeling, and neutralization of mines.

Air Defense

The Marine Corps is currently developing a light armored vehicle-air defense (LAV-AD) system. The armament on this system consists of a pedestal mounted Stinger, a 25mm gun, and, until recently, a launcher for Hydra-70 rockets. The program originally envisioned using the Hydra-70 system against hovering helicopters. Helicopters operating at low altitudes, masked by ground clutter, are particularly difficult targets. The Hydra-70 system proved to be unsatisfactory for this mission.

The committee believes that the LAV-AD program should evaluate an alternative missile for use in the place of the Hydra-70 system. The committee recommends $5.0 million in each of the next two years for evaluating a lightweight missile which can replace the Hydra-70 system on the LAV-AD and could also be used on the pedestal mounted Stinger. The goal of such an evaluation would be to find a missile that could augment Stinger capability to counter low-flying hostile aircraft in clutter. The Marine Corps should limit this evaluation to non-developmental items which could be produced and fielded quickly.

MARINE CORPS AMMUNITION

The committee recommends adjustments to the fiscal year 1992 Marine Corps request for ammunition which are based on revised requirements, production scheduling, and other program execution considerations. These adjustments do not increase the overall budget request, and are summarized below:

Changes to Fiscal Year 1992 Request

	(Dollars in millions)
40mm all types	—$45.3
4120mm HEAT	—9.3
120mm APFSDS-T	—23.6
120mm TP-T	—5.1
4Linear Charges, M913	+7.0
83mm rocket HEAA (SMAW)	+35.6
Light Anti-armor weapon (AT-4)	+24.7
25mm HEI-T	+9.0
25mm TP-T	+4.0

	(Dollars in millions)
25mm APDS-T	+3.0

In addition, the committee recommends an increase of $20.0 million to the Marine Corps ammuntion request for the procurement of the new M762 electronic time fuze.

M-60 MACHINE GUNS

The committee is aware that the Marine Corps is currently planning to replace its M-60 family of 7.62mm machine guns with 7.62mm coaxial machine guns which the Marine Corps intends to borrow temporarily from the Army and modify for ground use.

The committee is concerned that Marine Corps plans for product improvement or replacement of the M-60 family of machine guns have been changed repeatedly and substantially over the past several years. The Marine Corps plans are not based on credible analytic data, sufficient operational field testing, or cost-effectiveness.

The committee also understands that the Marine Corps intends to competitively evaluate a product-improved machine gun and the modified coaxial machine gun in operational and performance tests later this year. Conducting this evaluation would reduce uncertainty about the capability, reliability, and operational suitability of these two competing alternatives. This evaluation alone, however, will not answer the question of what should be done to provide machine gun capability for the longer term.

The committee directs, therefore, that no further actions shall be taken to procure or modify alternative 7.62mm machine guns until 30 days after the Marine Corps has submitted to the Committees on Armed Services of the Senate and the House of Representatives its detailed plan for replacing or improving these machine guns, including data on costs and performance of the competing alternatives, and the results of the planned "shoot-off." The committee designates the M-60 product improvement program as a congressional interest item and its funds shall not be diverted to or used for other purposes or reprogrammed without congressional approval.

ADVANCED ANTI-TANK WEAPON SYSTEM—MEDIUM

The amended budget request contained $4.0 million in fiscal year 1992 and $39.6 million in fiscal year 1993 to procure the AAWS-M anti-tank weapon for the Marine Corps. After the amended budget request was submitted to Congress for review, the administration decided to extend the development program and to delay the start of production by at least one year. Consequently, the committee does not recommend the authorization of any funds in fiscal year 1992 but recommends $4.0 million for long lead items in fiscal year 1993.

TACTICAL INTELLIGENCE INITIATIVES

The amended budget request included a total of $41.6 million to procure "Senior Warrior," a variant of the Air Force Senior Scout signals intelligence (SIGINT) system. In the Persian Gulf conflict, the Marines had to borrow 18 separate intelligence systems from the other Services, including an Air Force Senior Scout system, an entire Army Guardrail unit, and Army JSTARS ground stations modules (GSMs).

It is clear that Marine Corps tactical intelligence capabilities are seriously deficient. However, the committee is convinced that the C-130-based Senior Warrior system is the wrong solution to the Marine Corps' problems. In fact, the Marine Corps program would buy another collector, when it cannot use the data that is already available from other systems. The committee believes that the Marine Corps would achieve greater capability by procuring a series of terminals to exploit the capabilities of existing collection systems.

In situations where the Marines could employ a C-130 SIGINT system, there is no reason why the Air Force Senior Scout or several other SIGINT systems could not support them as well as an organic system. The argument that the Marines cannot count on support from other Services is belied by the experience in the Persian Gulf. Finally, even a small fleet of Senior Warrior aircraft would consume an inordinate share of the Marine Corps' intelligence budget.

Moreover, the committee understands that the longer term goal for the Senior Warrior program is to expand it into a full-blown airborne early warning and control capability, duplicating capability available within the Air Force and the Navy. The committee can find no justification for such duplication.

The committee recommends instead that the Marine Corps apply the funds requested for Senior Warrior to procuring ground stations and terminals that would permit Marine ground and air units to exploit existing collection systems in the Navy, Air Force, Army, and elsewhere.

In contrast to how the Air Force has outfitted and deployed the RC-135, the Navy has done an extremely poor job in disseminating intelligence in a timely manner to tactical force projection units in the Navy and Marine Crops. The EP-3 platform develops a significant amount of data, but urgently requires an integrated tactical data link capability to transmit the data to the ground forces. The committee recommends $15.0 million for this effort.

Similarly, the Navy has made no provision to share Battle Group Passive Horizon Extension System (BGPHES) signals intelligence data collected from the ES-3 platform with the Marine Corps. The committee directs the Navy and Marine Corps to develop an architecture and plan to equip the Marine Corps with BGPHES surface terminal capability using the common data link.

The committee recommends that the Marine Corps procure one Block II ground station module for each division to receive and display JSTARS radar data. The recommended authorization for JSTARS ground station modules includes sufficient funds to integrate a new hybrid commander's tactical terminal (CTT-H) into each module. The committee also believes that the Marine Corps should procure one tactical ground intercept facility (TGIF). A TGIF would provide a deployable capability to control the sensors and process intelligence from the TR-1/U-2 fleet when Air Force grounds stations have not yet been brought into the theater of operations. The Marine Corps should use the balance of the $41.6 million requested to buy a mix of the CTT-H terminals. These terminals would enable the Marine Corps to receive processed intelligence from Guardrail, Rivet Joint/AWACS, TR-1/U-2, and national systems. One version also has two-way communications that would permit coordination with Army and Air Force units and enable the Marines to give assignments to collection systems.

Given the scope of the changes that the committee recommends for integrating tactical intelligence in the Marine Corps, the committee directs the Department of the Navy to provide the congressional defense committees with a report by December 31, 1991, describing the full scope of requirements for dissemination assets and how these systems would be integrated into the Marine Corps command, control, communications, and intelligence architecture.

The committee also received testimony from members of the First Marine Division about various portable, tactical intelligence products employed by allied forces that would have greatly aided our ground force commanders in maintaining a better perspective of the front line operations. These products included a device for capturing and relaying digitized television pictures of operations at the front to the maneuver force commanders' headquarters. The committee recommends $3.0 million in fiscal year 1992 and $5.0 million in fiscal year 1993 for the Marine Corps to purchase such tactical reconnaissance products which can be purchased off-the-shelf.

MARINE CORPS PREPOSITIONING EQUIPMENT

One of the real stars of the deployment to the Persian Gulf was the Marine Corps' maritime prepositioning ship (MPS) program. The delivery of the first MPS squadron yielded the first U.S. heavy combat power available in Saudi Arabia. The committee believes that additional MPS capability would be an appropriate use of the sealift funds already appropriated or planned in the Navy's shipbuilding and conversion account.

The committee recommends $550.0 million for buying equipment to outfit new MPS ships or for modernizing the equipment on the existing MPS ships. The final report of the Mobility Requirements Study should be used as the basis for deciding how these funds should be applied.

LINE		FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
		Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
	AIR FORCE PROCUREMENT CHANGES												
	AIRCRAFT PROCUREMENT												
1	B-1B (MYP)		107,895		-107,895				142,880		--		--
2	B-2A (MYP)	4	2,456,028			4	2,456,028	7	3,144,631	--	--	--	--
5	F-15 E		169,657				169,657				245,000		245,000
7	F-16 C/D (MYP)	48	1,073,187	-48	-1,000,000		73,187	24	787,438	-24	-387,400		400,038
8	F-16 ADVANCE PROCUREMENT (CY)		78,100		-78,100								
	F-117			24	1,027,000	24	1,027,000						
11	C-17 (MYP)	6	1,975,203	-2	-450,000	4	1,525,203	12	3,181,575	--	--	--	--
12	C-17 ADVANCE PROCUREMENT (CY)		222,424		-100,000		122,424		512,405				512,405
21	E-8B			[2]	[652,600]			1	326,316	1	297,800	2	624,116
22	E-8B ADVANCE PROCUREMENT (CY)		62,700		62,700		125,400		101,458				101,458
26	B-1B		195,647		-79,947		115,700		195,107		--		--
33	TR-1A		55,101		-55,101				60,991		-60,991		
37	C-17A		1,618		-1,618				1,354		-1,354		
41	C-141		45,203		60,000		105,203		93,478		120,000		213,478
52	C-135	18	465,108		-38,300	18	426,808	18	371,986		-40,900	18	331,086
63	CLASSIFIED PROJECTS		56,254		12,000		68,254		81,967				81,967
66	APAF SPARES AND REPAIR PARTS		984,465		-95,500		888,965		914,835				914,835
70	OTHER PRODUCTION CHARGES		445,331		100,600		545,931		507,685		45,910		553,595
	DBOF DENY MILCON CAPITAL BUDGET				-1,200		-1,200				-100		-100
	DBOF-DIRECT FUNDING DCAA/DCMC										-199,400		-199,400
	DBOF TECHNICAL CORRECTION				4,700		4,700				22,100		22,100
	TOTAL AIRCRAFT PROCUREMENT, AIR FORCE				-740,661						40,685		
	MISSILE PROCUREMENT												
1	PEACEKEEPER (M-X)		195,178	12	190,600	12	385,778				--	--	--
11	AGM-65D MAVERICK		5,490		-5,490								
11a	AGM-65D MAVERICK PY SAVINGS				-100,000		-100,000						
13	AMRAAM	700	653,432		-156,200	700	497,232	1,310	867,031			1,310	867,031
44	IONDS (MYP)	4	39,786		-2,800	4	36,986	6	40,297		--	--	--
45	IONDS ADVANCE PROCUREMENT (CY)		12,854				12,854		11,538		--		--
46	SPECIAL PROGRAMS		2,419,740		-313,400		2,106,340		2,527,500		--		--
47	SPECIAL UPDATE PROGRAMS		72,679		100,000		172,679		206,055				206,055
	DBOF-DIRECT FUNDING DCAA/DCMC										-100,300		-100,300
	DBOF TECHNICAL CORRECTION				49,400		49,400				9,500		9,500
	TOTAL MISSILE PROCUREMENT, AIR FORCE				-237,080						-91,800		

	FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
	Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
LINE	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
AIR FORCE PROCUREMENT CHANGES												
OTHER PROCUREMENT												
5 20 MM COMBAT			945,000	8,100	945,000	8,100	265	2,050			265	2,050
8 20MM TRAINING			4500000	16,900	4500000	16,900	8,381	26,021			8,381	26,021
52 ARMORED SEDAN	2	329	-2	-329			4	658	-4	-658		
65 CAP VEHICLES				800		800						
100a AIR TRAFFIC CTRL/LAND SYS PY SAVINGS				-20,000		-20,000						
101 TACTICAL AIR CONTROL SYS IMPROVE		68,865		-3,000		65,865		92,585				92,585
102 WEATHER OBSERV/FORCAST		59,524		-1,000		58,524		67,305				67,305
112 DEFENSE METEOROLOGICAL SAT PROG		16,806		-7,700		9,106		16,246				16,246
114 TAC SIGINT SUPPORT		20,471		-13,700		6,771		20,455		-13,800		6,655
116 TACTICAL GROUND INTERCEPT FACILITY		13,134		-13,134				11,717		-11,717		
117 TR-1 GROUND STATIONS		41,955		-41,955				16,223		-16,223		
120 IMAGERY TRANS		22,843		-22,500		343		19,852		--		--
123 AUTOMATIC DATA PROCESSING EQUIP		85,739		-20,000		65,739		88,779				88,779
132 BASE LEVEL DATA AUTO PROGRAM		20,146		-10,000		10,146		24,619				24,619
139 TELEPHONE EXCHANGE		60,641		-8,400		52,241		86,229		-34,500		51,729
154 SPARES AND REPAIR PARTS -OPAF 3		162,457		-20,300		142,157		211,885				211,885
156 CAP COM & ELECT				500		500						
COMMO/ELECTRONICS PY SAVINGS				-146,000		-146,000						
187 INTELLIGENCE PRODUCTION ACTIVITY		62,888		109,600		172,488		71,784		--		--
188 SELECTED ACTIVITIES		5,367,165		83,500		5,450,665		5,523,700		--		--
DBOF-DIRECT FUNDING DCAA/DCMC										-132,300		-132,300
TOTAL OTHER PROCUREMENT, AIR FORCE				-128,618						-209,198		

B–1B BOMBER PROGRAM

The amended budget request contained $107.9 million for B–1B procurement items and $195.6 million for modifications to the B–1B for fiscal year 1992, and $142.9 million for procurement and $195.1 million for modifications for fiscal year 1993. The committee recommends no authorization for B–1B procurement items, except for selected safety-of-flight modifications, pending an intensive review of the future of the B–1B as a penetrating bomber.

Since its inception, the B–1B bomber has been characterized as an "interim penetrator," providing limited modernization to the aging B–52-based bomber fleet while the B–2 "stealth" bomber was under development. The B–1B design relied heavily on the use of defensive electronic countermeasures (ECM) to successfully penetrate Soviet air defenses. The defensive ECM system, the ALQ–161, failed to perform to specifications, as did several initial modification efforts. These failures led the Air Force to develop a vastly scaled-back ECM version, called the CORE configuration, which is able to deal with only a subset of the threats to the B–1B. The Air Force also proposes to procure and integrate a radar warning receiver suite for the B–1B, to enhance the aircrew's awareness of threats that the CORE configuration would not handle. An evaluation of two candidate systems is under way, but no decision has yet been made. The Air Force has requested other measures to enhance B–1B penetration capabilities, and still others are under consideration. The cost of the CORE modification alone is in the neighborhood of half a billion dollars, making clear that the Congress needs to consider the cost of further penetration aids, their effectiveness once implemented, and the length of time thereafter during which the B–1B will continue to be a penetrating bomber.

Earlier this year, the Air Force allowed the CORE program contract to lapse, so that a decision to proceed to implement the CORE modifications, should flight test data warrant proceeding, will require recompeting a contract and re-qualifying contractors, no doubt at added expense. Since the CORE contract has been allowed to lapse, this creates an opportunity for the Congress to take a careful and deliberate look at the prospective cost and utility of improving the B–1B's penetration capabilities.

Prior studies required by previous authorization acts have clearly shown that if the Soviet Union merely continues to modernize its air defenses, it will reduce the penetration probability of the B–1B to unacceptably low levels by the end of this decade. Effective Soviet defenses against the B–1 require neither new inventions nor the development of new systems; the Soviet Union needs only continue modest annual procurement of the latest-generation look-down, shoot-down fighters and surface-to-air missile batteries for the balance of the decade. Since military production appears to be one of the few areas of the Soviet economy still functioning with any efficiency, the committee judges it likely that sufficient modernization of air defenses will occur to defeat B–1B penetration by the end of the decade.

Assuming the Soviet Union continues these modest procurements, the only U.S. measure that can prolong the B–1B's ability to penetrate is the procurement of an adequate number of B–2 bombers to complement the B-1B. This allows B-2s to penetrate through the denser areas of Soviet defenses, while B-1Bs are assigned to less threatening penetration routes. Clearly, then, the value of purchasing improved B-1 penetration capabilities is a function of both their inherent effectiveness *and* the composition of the future bomber force. The House of Representatives proposed to limit the B-2 program to 15 aircraft during debate on the fiscal year 1991 authorization bill. Although the National Defense Authorization Act for Fiscal Year 1991 contained $2,348.4 million for B-2 procurement, the Air Force did not use those funds to order additional B-2 aircraft beyond the 15 currently on order. The B-1B will face early retirement to a role as a (very expensive and inefficient) cruise missile carrier, and the U.S. bomber leg of the triad will then consist exclusively of cruise missile-carrying aircraft. Indeed, since the United States would be limited to only 110 cruise missile-carrying aircraft under a START agreement, the B-1B would have to compete with the B-52H for retention in a post-START bomber force, absent a substantial B-2 inventory. Although it is significantly newer than the B-52s, the B-1 is more limited than the B-52 in its conventional capability. The B-1's superior low-altitude capability is of limited value in sustained conventional operations.

To assist it in its deliberations on the future of the B-1B, the committee directs in section 119 a number of additional reviews and analyses of the status of the B-1B, the adequacy of the CORE program, the cost-effectiveness of various improvements to the B-1B, and the capabilities of alternative future bomber forces in both nuclear and conventional scenarios. The Secretary shall specifically address the issue of modifications required to improve the B-1B's conventional capabilities. The committee expects to be in a position to consider whether or not to proceed with B-1B improvements and modifications during its consideration of the amended fiscal year 1993 defense budget request.

The committee recommends only $115.7 million for fiscal year 1992 for B-1B class III and class IV modifications, denies funds for the 1122 improvement project, and makes no recommendation for fiscal year 1993, pending a review and evaluation of the studies required by section 119. In addition, the committee denies funds for project 3895 contained in Air Force line-item Electronic Warfare Development (program element 64270F).

B-1B BOMBER IMPROVED CONVENTIONAL CAPABILITIES PLAN

The Air Force has requested $195.6 million for B-1B modifications to maintain its present capabilities, to prepare for future additions of standoff weapons, and to improve the safety, reliability and maintenance of the aircraft. The committee recommends only $115.7 million for safety-of-flight modifications.

The committee is concerned that the Air Force has not adequately responded to the intent of Congress that the B-1B be a multirole bomber. The B-1B was unable to participate in the Persian Gulf war not only because of engine problems but also because of inadequate certification for conventional weapons systems and lack of crews properly trained in conventional weapons delivery. Moreover, the Air Force has programmed significant conventional modifications for the 35-year old B-52s that are not planned for less than 10-year old B-1Bs. These include the Tri-Service Standoff Attack Missiles, GPS NAVSTAR, MILSTAR, FLIR, advanced monopulse countermeasures, and various conventional standoff weapons.

The committee believes that such modifications may be justified for the B-1B, as the next logical steps toward protecting the $28 billion investment that Congress has made in the aircraft. During Operation Desert Storm, heavy bombers armed with conventional weapons played a substantial role in the defeat of Saddam Hussein. Given the ability of heavy bombers to respond rapidly to crises anywhere in the world, coupled with the declining availability of the aging B-52, the committee believes that conventional enhancements of the B-1B may be both prudent and cost-effective. Accordingly, the committee directs the Secretary of the Air Force to specifically include in the plan required in section 119 a conventional modification plan for the B-1B which will address all improvements and weapons systems considered for use, or potential use, on the B-52 and B-2, as well as other improvements permitted by current and near-term technologies. The plan will include a cost-benefit analysis to address both the recommended improvements and those deemed inappropriate for the B-1B.

B-2 BOMBER PROGRAM

The amended budget request contained $3,200.4 million for fiscal year 1992 and $3,726.6 million for fiscal year 1993. The fiscal year 1992 request includes $2,456.0 million for procurement of four B-2 aircraft, $455.3 million in advance procurement for seven B-2s in fiscal year 1993, and $289.1 million for initial spares. The fiscal year 1993 request includes $3,144.6 million for procurement of seven B-2 aircraft, $463.0 million for advance procurement for seven B-2s in fiscal year 1994, and $119.0 million for initial spares.

The value of stealth in conventional conflict

As the F-117A "stealth" aircraft demonstrated during Operation Desert Storm, stealth technologies add an entirely new dimension to the art of war. Stealth has returned the factor of surprise to air operations, as F-117s struck at heavily-defended targets repeatedly and with impunity. The F-117 is a night, clear-weather, limited-range, limited-payload aircraft designed for selective attacks against high-value fixed targets. However, during the opening phase of Operation Desert Storm, the F-117s were assigned 31 percent of all the targets attacked, although the F-117s made up only two and one-half percent of the coalition's aircraft. During the war, no F-117s were lost, nor did any suffer battle damage.

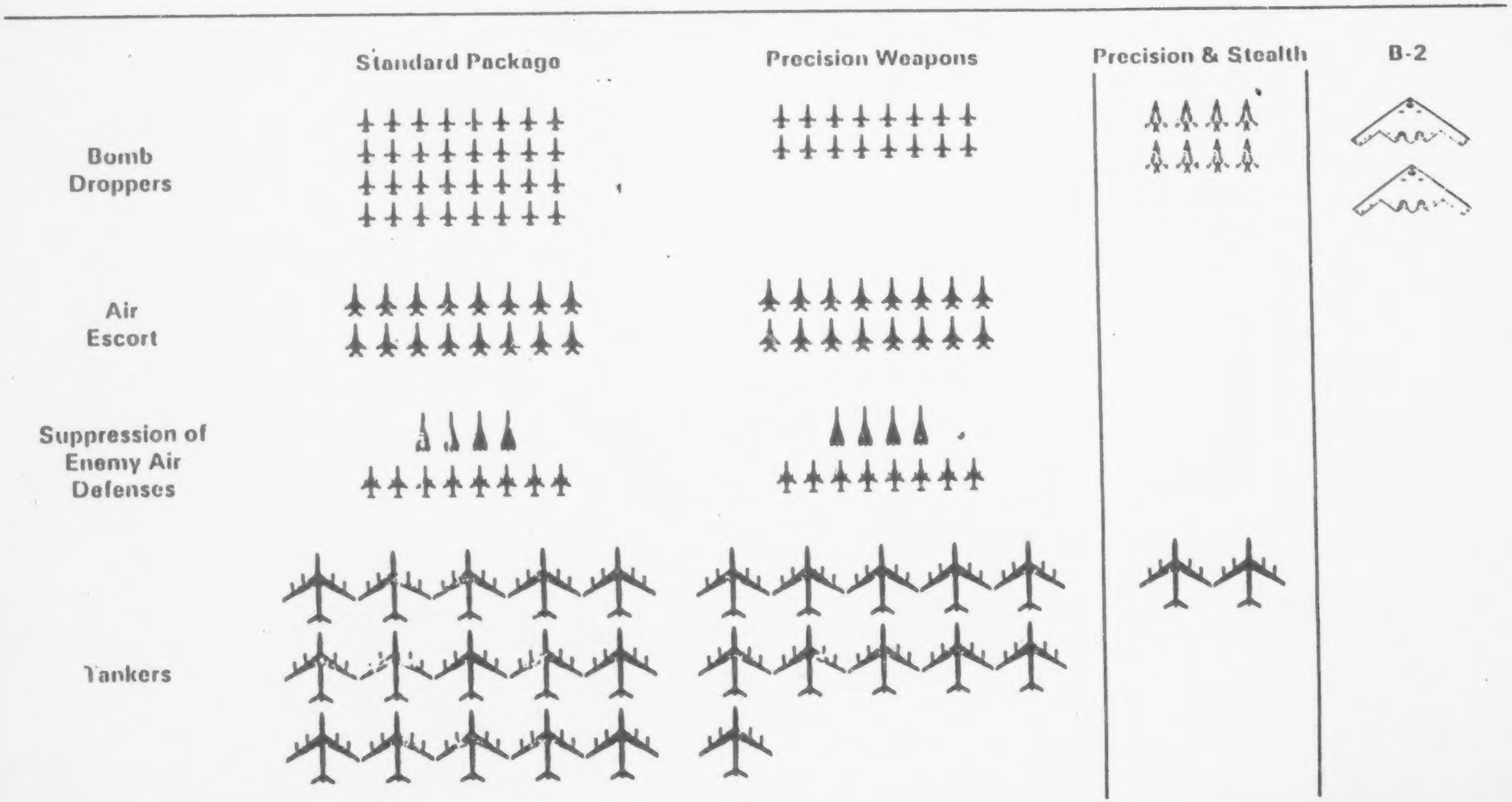
Stealth aircraft also made feasible the coalition's strategy to neutralize enemy air defenses early, thus allowing the coalition's nonstealthy aircraft to be widely used with minimal combat losses. The constant aerial bombardment that this allowed accelerated the deterioration of enemy ground forces, setting the stage for unprecedented success with minimal casualties in the ground campaign. However, the unprecedented success of the F-117 during Operation

Desert Storm is not reflected in the force structure projections of the Future Years Defense Plan (FYDP) or in the administration's amended budget request, both of which were prepared prior to the completion of the conflict.

The value of the B-2 in conventional conflict

The potential value of the B-2 in conventional conflicts is not reflected in the amended budget request or the FYDP either; but the committee believes its value is substantial. The B-2 offers all the advantages of the F-117 and more: greater range, significantly more payload, more comprehensive low observability, day/night/all-weather capability, and enormous growth potential. However, what that means for combat under various scenarios has largely been left unexplored. The committee has long believed that the B-2 offers significant advantages in the conventional arena. The most recent Air Force testimony, drawn from Operation Desert Storm experience, shows four "packages" of aircraft that are of roughly equal capability in attacking a set of high-value, heavily-defended targets deep in enemy territory (see chart on following page). The difference between the first and second packages, all using non-stealthy aircraft, is in the use of either unguided weapons ("dumb bombs") or precision-guided weapons. In addition to the attack aircraft, both packages include fighter aircraft, to escort and defend the attack aircraft, plus EF-111 and F-4G "Wild Weasel" aircraft to disrupt and attack enemy air defenses, and aerial refueling tankers to refuel the package. The package with "dumb bombs" contains 75 aircraft; using precision-guided weapons reduces the armada to 55 aircraft.

The Value of Stealth



By contrast, the same job could be performed by only eight F-117A aircraft, refueled by two tankers—no fighters, no EF-111s, no F-4Gs, and far fewer tankers. Finally, the same mission could also be done by two B-2s, with no support aircraft. (This understates the advantage of stealth, since, in fact, the non-stealthy armada was unable to achieve the desired results in the face of strong Iraqi defenses, and the F-117s had to be substituted before the targets were destroyed).

The Air Force estimates for the operation and support (O&S) costs for the two non-stealthy packages for 20 years total $4.2 billion and $3.4 billion, respectively, while the 20-year O&S cost for the two B-2s is only $308 million. Thus, to keep the non-stealthy armadas in the inventory costs 11 to 13 times as much as the two B-2s in support costs. The "cost-to-go" for the production of the balance of the B-2 program (60 more B-2s) is $28.4 billion, or an average "cost-to-go" of $470 million per B-2 aircraft. Thus, even with these procurement costs added only to the B-2 column, the B-2 is still significantly less expensive to own and operate than either of the non-stealthy aircraft packages.

Nor is this the only grounds for favoring the B-2. The results of Operation Desert Storm—in particular, the extremely low casualty rates among allied air and ground forces—have created new public expectations about future conflicts that may be hard to meet. The two non-stealth armadas have, respectively, 132 and 116 aircrew lives at risk in the air; the F-117 option has only 16, and the B-2 option only 4. However, as the tragic Scud attack on the U.S. barracks at Dhahran reminds us, even support personnel in rear areas may be subject to attack in future conflicts. All three non-B-2 options require both air bases and support staffs in the theater. The two non-stealthy armadas have 1,331 and 1,124 direct support personnel on the ground, not counting security and defense forces. The F-117 option also requires 179 support personnel on the ground, while the B-2 could be based outside the range of direct attack.

Another issue concerns timeliness of response. The three non-B-2 options have to wait for their support packages to be airlifted to the theater and made operational before they can begin sustained operations. The 75 aircraft armada requires 40 C-141 and 15 C-5 flights to deploy its support equipment (not including the deployment of air defenses, such as Patriot). With precision weapons, the 55 aircraft force requires 30 C-141 and 11 C-5 flights. Even the eight F-117s require 8 C-141 and 3 C-5 flights to muster their equipment.

Each airbase in a theater would be defended by at least two and, ideally, three Patriot batteries. Each Patriot battery deployed to the theater requires an additional 11 C-5 flights.

Moreover, it is fortunate that, during Operation Desert Storm, the coalition's air forces were based in a country blessed with substantial oil reserves and refining and storage capacity, because the coalition's airpower used fuel at an amazing rate, rapidly turning even Saudi Arabia into an *importer* of jet fuel. Either of the two non-stealthy armadas burns over 400,000 gallons of jet fuel per attack; the F-117 package requires over 110,000 gallons per attack. The two B-2s, however, even operating from more distant bases, consume less than half the fuel of the F-117 attack. For future contingencies distant from the Persian Gulf, fuel resupply may limit the size of air operations in a theater.

This raises a final point regarding air operations. The B-2, alone among the four options in the Air Force example, is ready for offensive operations anywhere in the world within hours. It does not require in-theater bases and infrastructure, it does not compete for airlift with ground forces trying to deploy, it does not deplete in-theater fuel stocks, it does not put support personnel at risk in the theater, and it minimizes the number of airmen operating near and over enemy territory.

As a recent Rand Corporation study demonstrates, it is this capability that allows the B-2, alone among major weapons systems, to begin prompt attacks against ground forces invading the territory of a distant friend or ally with little warning. The Rand analysis suggests that a B-2 force ranging in number from 50 to 65 committed aircraft can inflict sustained attrition rates of roughly a division per day against ground forces on the advance. Unlike the other packages, B-2s can begin these attacks on day one; unlike our current strategic bombers, B-2s can attack ground forces on the march with relative impunity. This capability is unique to the B-2.

The value of the B-2 for nuclear deterrence

In its nuclear deterrence role, the B-2, like our other nuclear forces, is intended *not* to be used; its role is to add to deterrence, to ensure that no head of state of a nuclear-armed nation could believe that an attack on the United States would not lead to devastating retaliation and catastrophic damage far outweighing any prospective gain. Penetrating bombers have served as a stabilizing entity, with an ability to be recalled, slow time of flight, and no "first strike" potential. For this reason, START counting rules have been crafted to provide incentives for each nation to favor penetrating bombers. U.S. penetrating bombers have also prompted the Soviets to invest many hundreds of billions of rubles in air defenses rather than in offensive weapons. Much of the Soviet investment in traditional air defenses would be negated by the procurement of an adequate number of B-2s. In addition, as recent congressionally-mandated studies by the Institute for Defense Analysis make clear, the only hope for retaining the B-1 as a penetrating bomber, even if its substantial deficiencies were corrected (which many believe to be unattainable), is to acquire a substantial B-2 fleet. This allows the B-1s to be assigned penetration routes exclusively across less-well-defended Soviet territory. The committee is persuaded that the B-2's dual contributions to strengthening deterrence and greatly enhancing our conventional warfighting capabilities, particularly early in a conflict, merit proceeding to volume production.

Program status and "fly before buy"

Thus far, six test B-2s (of which five will be refurbished at the conclusion of testing and delivered to the Strategic Air Command) and 10 production B-2s have been ordered. Three of the six test aircraft have been delivered and are flying. Fine tolerances on the

B-2 are required to achieve low observability; thus, all B-2s, including the test aircraft, have been built on production tooling. Although the Administration's original production plan would have had nearly 90 B-2s on order today, the committee has insisted on a careful policy of "fly-before-buy" testing to demonstrate the successful completion of three critical aspects of the B-2 program:

— Would the radical shape and aerodynamics of the B-2 work?
— Would production B-2s be as stealthy as analysis and part-scale tests suggested?
— Would the highly automated and tightly integrated flight controls and avionics systems work together as planned?

Until these questions were answered, the committee has held the production rate to two B-2s per year, the minimum rate consistent with retaining the learning-curve of the workforce and utilizing the production tooling required to produce the test aircraft. Although these congressionally-mandated actions have already added several billion dollars to the total program cost (since two aircraft per year is a very inefficient production rate), the committee has been equally concerned that the B-2 demonstrate the answers to the three major questions before proceeding to high-rate production.

It is the committee's judgment, reinforced by separate and independent reviews by the Defense Science Board, its Low Observability Panel, the Director of Operational Test and Evaluation, and the General Accounting Office, that the flight testing to date, taken together with the massive risk-reduction effort preceding flight testing, demonstrates that the B-2 flies as intended and will in practice be a highly stealthy vehicle. The remaining challenge is to demonstrate that the avionics work as well in B-2 aircraft as they have in the four years and thousands of hours of flight testing in a modified "flying-test-bed" aircraft. The third test B-2, which has just begun flight-testing, will answer this third question within months. The committee will insure that these tests have been successfully completed before additional B-2 aircraft are ordered with fiscal year 1992 funds.

Although only a small percentage of the total flight testing has been completed, the flight testing has been structured to address the major questions—those items that might lead to extensive and expensive fixes—very early. A recent analysis for the Office of the Secretary of Defense by the Rand Corporation demonstrates that the B-2 program is now beyond the point at which the *guaranteed* program cost increases that would be incurred by keeping B-2 production at low rate for another year outweigh the *potential* repair costs to B-2s already produced from potential defects that might be discovered during the next year's testing. In sum, it is time to decide whether or not there will be a viable B-2 program; if the answer is in the affirmative, then it is the committee's judgment that the balance of the aircraft should be acquired at the least possible additional cost.

Committee recommendations

The committee concludes that the Air Force's current plan to acquire the remaining 60 B-2 aircraft will not minimize the remaining program cost. The Air Force has reduced the planned maximum production rate to only 11 per year, in order to reduce its annual procurement budget. Increasing the production rate would decrease the remaining program costs, even though annual procurement expenditures over the next few years would be increased. As is discussed elsewhere in this report, the committee believes that programs that are ready for full production should be acquired at efficient rates.

The committee has examined several profiles for accelerated B-2 production. The committee believes that costs could be reduced significantly by moving to a production plan of four B-2s in fiscal year 1992, preserving the option for a higher production rate of eight B-2s in fiscal year 1993, and buying 16 B-2s in each of the next three fiscal years. If B-2s were procured at this rate, the B-2 program would be completed two years earlier than the Air Force's current plan. Previous Air Force testimony on the B-2 suggests that the cost of keeping the numerous manufacturing facilities open for production for a year is about a billion dollars, whatever the level of production. Additional savings should accrue from the "learning curve" effects of an increased production rate and from a multi-year buyout. Thus, overall savings from accelerating production should be on the order of $2.5–$3 billion, or about 10 percent of the remaining "cost-to-go." Accelerating the production rate would require an increase in funding in the near term, which would be more than offset by savings in subsequent years.

Cost savings from trade-offs at the margin

While the committee is convinced that $2.5 to $3 billion in B-2 costs could be saved by accelerating the production rate, this amount is only the beginning of the savings from the acquisition and fielding of the B-2. The Air Force analysis of equal-capability force packages shows one form by which savings could materialize—two B-2s can provide the same capability as armadas of 75 (or 55) tactical and support aircraft, yet the money saved over 20 years by retiring those armadas would pay for 7 (or 5) B-2s (procurement and 20-year operating costs). Thus, buying the B-2 can permit the retirement of less capable aircraft, leading to reduced defense spending overall, as well as improved capability overall.

The trade-off analysis provided by the Air Force represents only one such example, and may not be the best example. The committee is persuaded that the Department of Defense has conducted few such trade-off analyses to date, and none cutting across Service and mission lines. Now that the operational value of stealth is confirmed by the results of Operation Desert Storm, the Department must accelerate such evaluations, and incorporate the results into its future force structure plans and defense budgets. The committee believes there are a number of categories under which trade-offs at the margin should be conducted, including operations and support savings; procurement avoidance; reduced dependence on forward deployed forces; and closure of foreign bases. The committee poses some exemplary questions under each category below.

Operations and Support Savings

— If the full force of B–2s is acquired, how many tactical attack aircraft are needed?
— If the full force of B–2s is acquired, how many fighter and support aircraft are needed?
— If the full force of B–2s is acquired, how many tanker aircraft are needed?
— If the full force of B–2s, with worldwide range and rapid arrival, is acquired, how many carrier air wings and carrier battle groups will be needed?
— If the full force of B–2s is required, and if the risk of nuclear war is as low as administration witnesses have testified, should we immediately reduce the nuclear alert rate for bombers? Should we contemplate the early retirement of more B–52s? The B–1?

Procurement Avoidance

— If B–2s can assume part of the early attack mission, how many attack aircraft does the Navy need to replace? Would a different mix of non-stealthy A–6 and F/A–18 aircraft be acceptable?
— If B–2s can substitute for large packages of non-stealthy aircraft, how many re-engined tankers will we eventually need?
— If airpower can decimate the combat effectiveness of ground forces to the extent demonstrated in Operation Desert Storm, are our airlift requirements for heavy ground forces reduced? Do we need as many C–17s?

Reduced Dependence on Forward Deployed Forces

— If B–2s can provide prompt, massed firepower, should we be emphasizing highly mobile but less heavily armored ground forces for projection missions? Can we reduce forward deployed forces further?
— If B–2s can substitute for forward-based tactical air power, what savings can we make in the extent of their support "tails?" What are the implications for airlift, sealift, and aerial refueling tankers?
— If B–2s can arrive at crisis scenes within hours, do we need as many forward-deployed carrier task forces?

Closure of Foreign Bases

— If forward bases serve only as "way-stations" for tactical air forces to be based nearer to potential conflict theaters, minimizing transit times, does the full force of B–2s allow us time to deploy these other assets from CONUS, closing foreign bases?
— Does the full buy of B–2s reduce the value of and, therefore, the amount of compensation we should offer for the right to use foreign bases?

The committee is persuaded that, in return for the full procurement of B–2s, substantial savings from trade-offs at the margin can be generated. The committee is also persuaded that the defense budget will continue to decline, so that these trade-offs will be *necessary*. Therefore, to demonstrate that the added capability of the B-2 does, in fact, permit significant economies, the committee directs the Secretary of Defense to reexamine re-examination of future force requirements assuming full procurement of the B-2 program on the accelerated schedule outlined above. The Secretary shall provide the congressional defense committees with a set of options for achieving additional defense budget savings from the careful incorporation of the B-2 and other stealth aircraft and missiles into the future force structure.

Accordingly, the committee directs the Secretary to develop a set of alternative, illustrative trade-off plans that would generate additional savings of $6 billion, $9 billion, and $12 billion over the 10-year period, fiscal year 1994 through fiscal year 2003, assuming implementation of the plan during fiscal year 1993. The Secretary shall provide the required report not later than March 15, 1992, to permit the committee to consider exercising the option for accelerated production during fiscal year 1993. The committee believes the B-2 is both a necessary and an affordable capability, and intends to do all in its power to bring the program to fruition, at minimum cost to taxpayers.

The committee authorizes the full amount of the request for both procurement and RDT&E for the B-2 for fiscal year 1992. Pending receipt of reports of potential savings from trade-offs at the margin and of potential cost savings from various accelerated procurement rate profiles, the committee makes no recommendation for fiscal year 1993.

REDUCING THE COST OF SECURITY FOR STEALTH PROGRAMS

The committee continues to be astounded by the intransigence of the Department of Defense in requiring that all production workers on all special access programs, no matter how large, receive special background checks, regardless of how menial or unrelated to stealth technology their productions tasks. This requirement compounds the problems of manufacturers in adjusting to schedule or workload changes, encourages them to continue to employ already cleared workers even if workloads do not fully justify the staff levels, and adds immeasurably to the already substantial costs of special access programs that have reached production. In most cases, production workers have neither access to nor detailed understanding of the various technologies used to produce low observability.

Accordingly, the committee directs the Secretary of Defense to conduct a review of the justification for the current policy of requiring full background investigations and special access clearances for production workers on the assembly lines of major stealth programs. The Secretary shall review the extent to which the limited knowledge of production workers about stealth technologies is already amply reflected in articles and publications in the public domain, and shall review the costs and benefits of alternative levels of clearance for production workers on major programs. The Secretary shall provide such a report, together with his recommendations for changes, if any, to the congressional defense committees not later than February 1, 1992.

ADDITIONAL F-15E PROCUREMENT AND SUPPORT EQUIPMENT

Congress authorized and appropriated funds for 36 F-15E aircraft in fiscal year 1991. This represented the conclusion of the program. Last fall, at the onset of Operation Desert Shield, the President authorized the sale of 24 Air Force F-15C/D aircraft to Saudi Arabia. At the time of the sale, Congress was told that receipts from the sale would be used to procure 12 replacement F-15E aircraft.

In preparing for the fiscal year 1992 budget request, the Department determined that F-15 support equipment was a higher priority than buying 12 replacement aircraft. The Air Force reduced the funds that had been earmarked for support equipment in fiscal years 1992/1993 and was instructed to reprogram funds from the F-15 line (which now includes the receipts from the Saudi Arabia sale) to cover those expenses. The Air Force requires $779.0 million to meet support equipment needs. The budget request includes $170.0 million in fiscal year 1992, and the Department of Defense has submitted a reprogramming request to transfer $614.0 million to meet remaining requirements. That reprogramming is pending before Congress.

This situation presents a dilemma. On the one hand, Congress supported the sale of F-15 aircraft to Saudi Arabia, in part, on the understanding that the Air Force would be given 12 new F-15Es to replace the 24 F-15C/Ds it was losing through the sale. The F-15E fleet is already small, and three F-15 aircraft were lost during Operation Desert Storm. Further, the Air Force has been directed to increase by six the number of F-15E supporting the European Command. These two developments have created an effective shortfall of nine aircraft.

On the other hand, the committee has criticized the Air Force for neglecting procurement of spare parts and support equipment in the past. The committee believes strongly that support equipment and spares are just as important a procurement priority as are new aircraft.

Therefore, the committee recommends that of the funds made available by the transfer of the 24 aircraft to Saudi Arabia, $250.0 million shall be obligated for the procurement of six F-15E aircraft, bringing the total fiscal year 1991 F-15E procurement to 42 aircraft. Further, the committee recommends that $364.0 million of the funds made available by the sale proceeds should be obligated for the procurement of support equipment.

Because the total additional requirement for support equipment is $609.0 million, the committee recommends an additional authorization of $245.0 million in fiscal year 1993 to complete the procurement of support equipment.

Finally, to address the F-15 combat attrition, the committee recommends authorization of $125.0 million from the Defense Cooperation Account to procure three additional F-15E aircraft.

AIR FORCE TACTICAL AIRCRAFT PROCUREMENT

Operation Desert Storm provided compelling evidence of the importance and efficacy of tactical aircraft—especially for stealthy aircraft—in conventional warfare. These insights are especially important at a time of fundamental transition in Air Force tactical aircraft procurement.

The Air Force currently plans to procure only 72 additional F-16 aircraft, 48 in fiscal year 1992 and 24 in fiscal year 1993. The committee questions the need for additional F-16 aircraft at a time when the Air Force is eliminating the equivalent of 30 tactical fighter squadrons.

The committee also notes that the F-16 is not a stealthy aircraft. As the Air Force pointed out, the F-117, while constituting only three percent of the combat aircraft used in Operation Desert Storm, dropped nearly 40 percent of the precision ordnance in the operation. The Commander of the Tactical Air Command testified that the F-117 is eight times more effective than the F-16 because it is stealthy.

The committee concludes that with the limited resources available for tactical aircraft procurement in this period of transition, the lessons learned from Operation Desert Storm do not justify procuring additional non-stealthy F-16s only to have the production line terminated next year anyway. Instead, Operation Desert Storm indicates that the limited resources available for tactical aircraft procurement should be devoted to procuring additional F-117s. The committee notes that it is possible to buy 24 additional F-117s for the same price as the 48 F-16s in the budget request, yet the combat effectiveness of those 24 F-117s is equivalent to that of 172 F-16s, which would cost $3.5 billion. Buying 24 F-117s today has the effect of saving $2.5 billion over the next five years. Not only does this limited procurement of F-117s result in substantial procurement savings over the Air Force plan, it will produce even greater operating savings in the future since the Air Force will be able to maintain its warfighting capability with fewer forces.

The committee is concerned about the industrial base. The Air Force indicated, however, that its long-term replacement aircraft for the F-16 (the multirole fighter or MRF) does not need to enter production until the next century. There is no way that the Air Force can sustain the F-16 production line for 8 years when it doesn't need to buy any more F-16 aircraft. Further, the Air Force has testified that it does not want to be bound to consider only derivatives to the F-16 in pursuing the MRF program. As such, continued production of F-16s at low rates would produce aircraft that are not needed and would not necessarily provide a production bridge to a future aircraft.

Consequently, the committee recommends an authorization of $1,027.0 million to procure 24 new F-117 aircraft. The committee views this as a one-time procurement that satisfies all remaining requirements. The committee directs the Air Force to terminate any further procurement of F-16 aircraft. In order to minimize disruption in existing multiyear contracts, the Air Force is directed to utilize components and parts procured with long-lead funds to support ongoing foreign military sales of F-16 aircraft.

C-17 AIRCRAFT PROCUREMENT

The administration originally requested authorization in fiscal year 1991 for the procurement of six C-17 transport aircraft. Subsequently, the Secretary of Defense conducted a Major Aircraft Review (MAR) of several programs, including the C-17. Based on this review, the Secretary reduced his request for authorization to two C-17 aircraft and cut the total program from 210 aircraft to 120. Congress decided that fully funding even the two aircraft requested by Secretary Cheney was not warranted by progress in the development and testing program. This year, the Department is seeking authorization for six and 12 aircraft in fiscal years 1992 and 1993, respectively.

The committee has been committed to the C-17 and to achieving the capabilities the C-17 could add to our airlift forces. Recent experience in the Persian Gulf showed the contribution that airlift can make to our strategic lift capability. This was the largest deployment that U.S. forces had made since World War II. It also showed that current airlift capability is very impressive. The committee has been disappointed that the Mobility Requirements Study (MRS) directed by Congress last year has not been completed along the originally requested schedule. The interim MRS report was delivered roughly on time, but its conclusions did not deal with airlift issues.

Secretary Cheney testified last year that slowing down the C-17 would reduce the program's concurrency. Nevertheless, rising development costs have raised concerns about the contractor's viability and about the longer term effects that these changes imply for the program's procurement costs. There are concerns that contract specifications have been relaxed on a number of items, even before flight testing has begun. A recent notification by the Air Force to the contractor cited some 75 discrepancies in performance. Some problems, such as potential problems with the low altitude parachute extraction mission and the data bus (in an aircraft with all digital flight controls) generate significant concern. There have also been reports that the follow-up aircraft review by Under Secretary of Defense for Acquisition Yockey early this year nearly resulted in a decision to cancel the program.

C-17 PRODUCTION PLANS

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Annual units	2	4	4	....	6	12	12	18	18	18
Cumulative	2	6	10	10	16	28	40	58	76	94

The C-17 program has been running at least one year behind schedule. First flight of the first test aircraft (T-1) is now scheduled to take place sometime this summer or fall. The next major planned milestone is the first flight of the first production aircraft. This event last year slipped from October 1990 to September 1991.

Now, it is unlikely that this will happen until early next year. This delay, more than the delay of the T-1 first flight, indicates that the contractor is not really ready to ramp up production.

The Air Force has been managing the C-17 program using an "event-based", or milestone schedule. The following table shows the events upon which contract awards were to be based and also shows how the schedule has slipped from the original plan:

C-17 EVENT-BASED CONTRACT AWARDS

Contract Option	Lot	Quantity	Event	Original Schedule	Current Schedule
FY 89	II	4	Mission Computer Software Critical Design Review	Awarded	--
FY 90	III	4	R&D Aircraft Assembly Complete	Jan 90	Dec 90 (Awarded Jun 91)
FY 92 (originally FY 91)	IV	6	First Flight of First Production & R&D Aircraft	Oct 90	Dec 91
FY 93 (originally FY 92)	V	12	Acceptance of Fifth Production Aircraft	Sep 91	Oct 92

The table shows the Air Force's original plan to award the production contract for the aircraft authorized in fiscal year 1990 upon completion of assembly of the first research and development aircraft. This event actually occurred in December 1990, three months into fiscal year 1991. Because of continuing concerns about the health of the contractor and the program, contract award was delayed until June 1991.

The Air Force and the contractor have decided that the event-based contracting structure is an onerous burden on this acquisition program. The committee understands that the contract for Lot III included removing the milestone events from the future contracting actions. The committee has serious questions about the wisdom of this decision. The committee notes that the B-2 program has been conducted under an event-based milestone system, including publication of a B-2 systems maturity matrix, containing numerous performance-oriented goals which must be achieved or demonstrated before each year's annual production option can be exercised.

The next major C-17 milestone, and what would have been the basis for awarding the six aircraft of Lot IV requested for fiscal year 1992, would have been completion of first flight of both the research and development aircraft and the first production aircraft. This event has slipped from October 1990, to at least December 1991, and possibly later. Award of Lot V would have been tied to acceptance of the fifth production aircraft, now scheduled for October 1992.

Under the currently proposed production schedule, Congress would have authorized roughly 48 percent of the program before the operational readiness evaluation can be completed in early fiscal year 1995. The committee is still concerned that the C-17 program may be too exposed before testing can show whether the aircraft can meet its advertised performance specifications.

The committee is also concerned about the Air Force reduction in the contract specifications for the C-17 and the effect that this reduction will have on aggregate airlift capability. The continual downgrading of the C-17 performance requirements is worrisome, in that the case for developing a new airlifter rather than extending production of existing airlift aircraft rested on the assertion of improved performance and greater capability. The continual downgrading of performance requirements may lead to a much more expensive airlift program that provides little additional capability.

The committee directs the Secretary of Defense to submit a list of all prior reductions in performance to which the Air Forces has agreed, and to notify the congressional defense committees in writing of any future reduction in capability, performance, or specification for the C-17 within 30 days of any such decision in the future.

To ensure that airlift capability is not compromised by reductions in performance of the C-17, the Secretary of Defense shall also forward such notifications, prior and future, to the Vice Chairman of the Joint Chiefs of Staff. The Vice Chairman, in his role as Chairman of the Joint Requirements Oversight Council which validates requirements, shall, after consultation with the unified and specified combatant commanders, certify to the congressional defense committees that the cumulative effect of the reductions in performance to date do not reduce the military utility of the C-17 below the levels required by the unified and specified combatant commanders, and that the C-17 continues to be the most cost-effective means to meet U.S. airlift requirements.

The committee wants to ensure that the changes already identified have not altered the Air Force's conclusions about the cost-effectiveness of the C-17 alternative. The committee therefore directs the Defense Department Inspector General (IG) to review the Department of Defense's and the Air Force's life cycle cost and performance analyses, and provide an independent assessment of whether these analyses are still valid. The committee believes that the IG should pay particular attention to changes in major specifications, such as weight, fuel consumption, cargo capacity, and maximum range. This assessment should also analyze the validity of the models used to make the effectiveness calculations and the reasonableness of the scenarios used in the models.

Based on an assessment of the program status, the committee recommends authorization of four aircraft in fiscal year 1992. The committee does not support the Air Force's plan to ramp up production at this time. The committee recommends authorization of sufficient funds in fiscal year 1992 to support advance procurement for up to eight aircraft in fiscal year 1993. The committee, however, specifically takes no position now on the number of aircraft which should be authorized in fiscal year 1993, pending further assessment of progress on the testing and production efforts. With the demonstrated capability of the current airlift fleet, there is no hurry to get the C-17 fielded before testing can demonstrate that performance meets requirements. The committee also believes that, until the Air Force can propose some better method for managing C-17 acquisition, the program should continue to adhere to the modified event-based schedule presented above, and has recommended a provision that would require this action. In other words, contract awards in fiscal years 1992 and 1993 should be contingent upon completion of first flight of the first production aircraft and acceptance of the fifth production aircraft, respectively.

The committee also recommends a provision that would require the Director of Operational Test and Evaluation (DOT&E) to submit an independent assessment of all testing milestones and whether the aircraft meets the performance thresholds required by the contract. Specifically, following the first 50 flight hours of the operational flight testing program, DOT&E shall review flight testing with respect to "Critical Operational Issues" and shall provide to the Secretary of Defense and the congressional defense committees an "Early Operational Assessment" of the C-17 aircraft with respect to its overall suitability and its deficiencies relative to both initial and current requirements and specifications.

Initial operational testing and evaluation (IOT&E) is scheduled during fiscal year 1993. The committee recommends a provision that would specifically prohibit obligation of fiscal year 1993 funds, other than for advance procurement, until the Air Force accepts the fifth production aircraft, and DOT&E reports to the congressional defense committees the results of the first 50 hours of IOT&E.

JOINT SURVEILLANCE AND TARGET ACQUISITION RADAR SYSTEM

The committee has consistently and strongly supported the Joint Surveillance and Target Acquisition Radar System (JSTARS) and is gratified by its excellent performance during Operation Desert Storm. The committee notes that this is precisely the kind of advanced technology that minimized U.S. casualties while maximizing the combat effectiveness of U.S. forces.

The committee believes the Air Force should aggressively procure JSTARS aircraft. The committee also understands that the Department of Defense Comptroller expects funds to remain available in the Defense Cooperation Account after all direct Operation Desert Shield/Desert Storm expenses are covered. The committee therefore recommends a provision that would authorize the disbursement of funds from the Defense Cooperation Account to cover the purchase of two additional JSTARS aircraft. The committee believes that an ongoing JSTARS presence in Southwest Asia—like AWACS—is a stabilizing presence and is likely to be a prominent feature of the U.S. military presence in the region. As such, the committee believes it is thoroughly appropriate to buy two additional JSTARS aircraft with residual Defense Cooperation Account funds.

The committee also recommends an increase in authorization for fiscal year 1992 advance procurement for a second aircraft in fiscal year 1993 and recommends authorization of the second aircraft in fiscal year 1993.

C-17 AIRCRAFT MODIFICATIONS

The administration requested authorization for $1.6 million and $1.4 million in aircraft modifications for the C-17 program in fiscal years 1992 and 1993, respectively.

The committee sees no need to begin this modification program when the first production aircraft has not been delivered.Therefore, the committee recommends no authorization for C-17 aircraft modifications at this time.

C-141 AIRCRAFT MODIFICATIONS

The administration requested authorization for $45.2 million and $93.5 million in aircraft modifications for the C-141 program in fiscal years 1992 and 1993, respectively.

Recent experience in supporting the Persian Gulf deployment has shown how large a contribution these aircraft make to strategic lift capability. In testimony before the committee earlier this year, Secretary Cheney testified that, "We are flying the wings off of these aircraft."

He may have been more correct than even he knew at the time. Recent inspections of C-141 wings during maintenance have shown an alarming number of cracks at vital places. At the time of the C-141B service life extension program, the Air Force testified that they would make repairs in these areas, particularly wing station 405 and the center wing box, later during depot maintenance periods. These actions would allow 45,000 flight hours of service from the aircraft.

With these emerging problems, the committee is concerned that an even greater drop in airlift capability will occur over the next several years than indicated by current plans. It could well be that the Mobility Requirements Study will show that we need less airlift capability, but this is not very likely.

The committee recommends an additional authorization of $60.0 million in fiscal year 1992 and $120.0 million in fiscal year 1993 for the C-141 modification program for fixing wing station 405 cracks and the center wing box problems. This action will preclude retiring these aircraft before they reach the required 45,000 hour life.

C-135 AIRCRAFT MODIFICATIONS

The administration requested authorization for $465.1 million and $372.0 million in aircraft modifications for various C-135 aircraft in fiscal years 1992 and 1993, respectively.

The vast majority of these funds are for continuing the KC-135 re-engining program. Various upgrades to the strategic command post and strategic communications relay aircraft are also funded in this modifications line.

The committee recommends full authorization for the tanker re-engining program.

The committee believes, however, that funding for Milstar terminals and other communications upgrades to strategic command post and communications aircraft systems should be funded in the Navy's E-6A TACAMO program. This is because the committee recommends retiring up to 27 of the EC-135 strategic command post and relay aircraft, and substituting new E-6A aircraft in that role.

The committee recommends authorization of $426.8 million and $331.1 million for the C-135 modification program for continuing the tanker re-engining program and for fixing various safety-of-flight problems on the C-135 fleet.

RIVET JOINT RC-135

As part of the committee's tactical intelligence initiative, the committee recommends improvements to the RC-135 Rivet Joint signals intelligence collection system to increase its utility for tactical forces.

Rivet Joint was used very effectively in the Persian Gulf against both air and ground targets. The Tactical Intelligence Broadcast System (TIBS) terminal provided critical dissemination and display capabilities. The TIBS terminal, however, is in prototype configuration and was available only in limited numbers. The committee directs the Air Force and the Assistant Secretary of Defense for Command, Control, Communications and Intelligence to develop an acquisition plan for this important program.

Despite the success of TIBS and Rivet Joint, the RC-135 aircraft's capability to disseminate information to tactical forces is limited. The committee recommends additional funds for fiscal year 1992 to correct this deficiency. Further details are contained in the classified annex to this report.

MX PRODUCTION

The committee disapproves the administration's proposal to terminate production of the MX ICBM in fiscal year 1991, five years earlier than previously planned. During a June 5, 1991 hearing, the Air Force testified that closing the MX production line would cause the loss of 40-60 percent of the 8,100 scientists, engineers and technicians in the U.S. ICBM workforce and increase Small ICBM development costs by $200 million, thereby increasing program risk. Reducing total MX procurement from 173 to 114 missiles, as proposed by the administration, leaves little margin for correcting any major design, engineering, or safety problems that may be discovered through follow-on operational test and evaluation (FOT&E) flight tests. Capping the inventory at 114 missiles also means the MX will have to be retired from the inventory soon after all test assets are exhausted in 2003, even though most U.S. strategic systems have been kept in the force well beyond their originally-projected service lives.

In addition, terminating MX production when the administration has yet to commit production funds in the Future Years Defense Plan for the Small ICBM (SICBM) could result in the dismantlement of the only U.S. ICBM production line. At a time when Soviet ICBM modernization continues at a robust pace and the future of START remains uncertain, the committee does not believe the United States should take this risk.

The committee is prepared to permit the Air Force to determine how many MX FOT&E flight tests should be conducted each year to maintain a high level of confidence in the reliability and accuracy of the missile and is therefore willing to consider some reduction from the original plan to produce 173 missiles. However, it does not believe that a total inventory of 114 missiles adequately meets the FOT&E requirements for this weapons system, nor does it provide sufficient flexibility for extending Peacekeeper's service life past 2003 should strategic requirements so require. Accordingly, the committee authorizes $651.6 million for procurement of 12 MX missiles in fiscal year 1992, including $266.8 million that is available from prior year funds, as follows:

Amount (dollars in millions)	Fiscal year	Account
140.0	1991	MPAF (MX)
16.4	1990	MPAF (MX)
14.9	1989	MPAF (MX)
95.5	1991	RDT&E,AF (ICBM Mod)

MAVERICK MISSILE

The committee notes that the funds provided in the supplemental appropriations act for Operation Desert Shield/Desert Storm to procure Maverick missiles were excess to that required to procure replacement missiles. The committee recommends a reduction of $100.0 million based on the unit costs of Maverick missiles in the previous three years.

ADVANCED MEDIUM-RANGE AIR-TO-AIR MISSILE

The committee has consistently supported the Advanced Medium-Range Air-To-Air Missile (AMRAAM) and considers it essential for the combat effectiveness of tactical air forces in the future. The committee is disturbed, however, to learn of possible doubts of the effectiveness of the AMRAAM warhead. Accordingly, the committee understands the Air Force is undertaking certain tests and analyses to determine AMRAAM warhead effectiveness against current and projected threats. The committee is unlikely to support any increase in the production rate of the AMRAAM above the current rate until the Department of Defense verifies that the AMRAAM warhead is effective against projected threat systems.

The General Accounting Office has informed the committee that because of production delays, $156.2 million of the funds requested in fiscal year 1992 would procure missiles that cannot be produced during the fiscal year funded delivery period. These funds can be removed with no effect on production schedule or subcontractor activity. Therefore, the committee recommends a $156.2 million cut in the budget request in fiscal year 1992.

Finally, section 163 of the National Defense Authorization Act for Fiscal Years 1990 and 1991 prohibited the Air Force from obligating funds for the AMRAAM beyond low rate initial production until operational testing demonstrated that all requirements for AMRAAM had been satisfied. The committee has learned that this provision is unnecessarily restrictive. The Director of Operational Test and Evaluation has informed the committee that some requirements can never be *demonstrated* through operational testing. The committee believes that it is sufficient that the Director certify that the AMRAAM is operationally effective and suitable, and recommends a provision that would amend section 163 accordingly.

AIR FORCE AMMUNITION

The committee recommends increases of $25.0 million for 20mm training and combat ammunition and $8.9 million for 25-pound practice bombs for the Air Force in fiscal year 1992.

CIVIL AIR PATROL

The Civil Air Patrol provides invaluable assistance for search and rescue, and plays an increasingly important role in the drug interdiction effort. The committee believes that the Civil Air Patrol should continue to modernize its ground transportation vehicles and communications equipment. The committee recommends an additional $800,000 to procure vehicles and $500,000 to procure communications equipment appropriate for the Civil Air Patrol's requirements.

DEFENSE METEOROLOGICAL SATELLITE PROGRAM TERMINALS

The amended budget request included $16.8 million for fiscal year 1992 and $16.246 million for fiscal year 1993, in part, to procure upgrades to the tactical terminals that receive weather data and imagery from the Defense Meteorological Satellite Program (DMSP). These upgrades are necessary to allow tactical commanders to receive timely weather data to plan and execute military operations and to prepare the delivery of smart munitions.

The development of the terminals has been delayed, however, so the committee recommends deferring procurement until fiscal year 1993. The committee reduces the request for fiscal year 1992 by $7.7 million and approves the requested amount for fiscal year 1993.

TELEPHONE EXCHANGES

The amended budget request included $60.6 million and $86.2 million in fiscal years 1992 and 1993, respectively, to install new telephone exchanges at various Air Force installations. After the administration submitted the amended budget request to Congress, the Air Force proposed the closure of several bases which were scheduled to receive new telephone exchanges. The committee decided not to authorize funds to modernize bases that, in all likelihood, will be closed in the next few years. Consequently, the committee recommends cuts of $8.4 million in fiscal year 1992 and $34.5 million in fiscal year 1993 without prejudice.

AIR FORCE SPARE PARTS

The committee recommends an increase of $20.4 million to the amended budget request for spare parts in the Other Procurement, Air Force account to address shortages for spare parts for the tactical ground intercept facility and the TR–1 ground stations in fiscal year 1992.

LINE	FISCAL YEAR 1992 AUTHORIZATION						FISCAL YEAR 1993 AUTHORIZATION					
	Amended Request		Senate Change		Authorization		Amended Request		Senate Change		Authorization	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
DEFENSE AGENCIES PROCUREMENT CHANGES												
PROCUREMENT DEFENSE AGENCIES												
7b C-20F AIRCRAFT			3	93,000	3	93,000						
6 CLASSIFIED EQUIPMENT, NSA		[ ]		[-19,992]				[ ]		--		--
17 INTELLIGENCE & COMMUNICATIONS, DIA		[ ]		[-1,500]				[ ]		--		--
36 MAJOR EQUIPMENT, DSPO		239,240		-60,000		179,240		330,407		--		--
39 VEHICLES, OSIA		20	2	30	2	50		30				30
40 OTHER CAPITAL EQUIPMENT, OSIA		7,501		18,070		25,571		7,208		8,000		15,208
999 CLASSIFIED PROGRAMS		465,965		-21,492		444,473		520,124		--		--
MENTOR-PROTEGE PROGRAM				15,000		15,000				15,000		15,000
DBOF TECHNICAL CORRECTION				10,900		10,900						
DBOF-DIRECT FUNDING DCAA/DCMC										-33,400		-33,400
JOINT SIMULATION OFFICE-PY SAVINGS				-90,000		-90,000						
45 C-130 MODIFICATIONS		101,663		12,900		114,563		133,106				133,106
54 SOF INDIV WEAPONS AMMUNITION		13,083		8,000		21,083		17,870				17,870
56 SOF PLATFORM GUN AMMUNITION		39,252		3,000		42,252		37,240				37,240
62 COMM EQUIPMENT & ELECTRONICS		77,816		8,000		85,816		81,622				81,622
69 MISCELLANEOUS EQUIPMENT		40,999		10,700		51,699		42,787				42,787
TOTAL PROCUREMENT, DEFENSE AGENCIES				38,108						-10,400		
CHEMICAL AGENTS & MUNITIONS DESTRUCTION												
DBOF-DIRECT FUNDING DCAA/DCMC										-9,200		-9,200
NATIONAL GUARD AND RESERVE EQUIPMENT												
AR SINCGARS RADIOS				15,000		15,000						
AR C-12F			3	7,500	3	7,500						
15 NR MH-60 HELICOPTERS			4	129,000	4	129,000			4	134,000	4	134,000
31a ARNG MEDIUM TACTICAL TRUCKS-PY SAVINGS				-11,600		-11,600						
33a ARNG AH-1 MODS				15,000		15,000						
42 ARNG FAMILY OF M113 VEHICLES				10,000		10,000						
43 ARNG C-26 AIRCRAFT			2	6,000	2	6,000						
44 ARNG MLRS LAUNCHERS				110,000		110,000						
46 ARNG NIGHT VISION DEVICES				15,000		15,000						
47a ARNG SQUAD ENGAGEMENT TRAINING DEVICES				10,000		10,000						
ARNG RESERVE STAFF SIMULATION CENTER				2,000		2,000						
80 ANG C-130 AIRCRAFT			12	309,800	12	309,800						
TOTAL GUARD AND RESERVE EQUIPMENT				617,700						134,000		

C-20F AIRCRAFT

The committee understands that significant deficiencies exist in the Defense Department's operational support aircraft fleet, especially in the Pacific theater where long distances impose serious limitations on the current aged fleet of support aircraft. Consequently, the committee recommends an authorization of $93.0 million to procure three C-20F aircraft in fiscal year 1992. These aircraft are to be operated in the U.S. Pacific Command area, to include Alaska, in support of the Commander in Chief of the U.S. Pacific Command (CINCPAC) and all the Service components in his region. CINCPAC shall ensure that all organizations have access to and are supported by these aircraft.

SPECIAL OPERATIONS FORCES

Special operations forces demonstrated their flexibility and effectiveness during Operation Desert Shield/Desert Storm. As in Operation Just Cause in Panama, they carried out a wide range of challenging missions.

The large number and variety of the missions performed by special operations forces underscore their integration into the full spectrum of U.S. military capabilities. Their extensive use in both Panama and the Persian Gulf has confirmed the importance of their capability in a U.S. military response to a contingency.

The committee recommends a package of funding initiatives that would resolve several operational problems experienced by special operations forces in Operation Desert Shield/Desert Storm. The package would also fund several activities that would make significant long-term differences in U.S. special operations capabilities.

The package recommended by the committee totals $128.5 million and consists of four parts: (1) $42.6 million in procurement; (2) $32.2 million in research and development; (3) $42.3 million in operation and maintenance; and (4) $11.4 million in military construction. The research and development, operation and maintenance, and military construction activities that would be authorized additional funds are described in titles II and III and Division B of this report.

The following procurement activities are included in the committee's package:

1. *C-130 modifications ($12.9 million).*—These funds would procure (a) sensor improvements for AC-130H gunship aircraft and (b) forward looking infrared radar (FLIR) for C-130 special operations low level (SOLL) transport aircraft and HC-130 tanker aircraft.

2. *Munitions for Naval Special Warfare forces ($8.0 million).*—This initiative would restore funds for Naval Special Warfare munitions that were diverted to fully fund the accelerated conversion of submarines for dry deck shelters.

3. *Ammunition for coastal patrol boats ($3.0 million).*—These funds would procure ammunition for the platform gun on the coastal patrol boats. Because the procurement of this ammunition requires a two-year lead time, these additional funds are necessary in fiscal year 1992 to ensure that adequate stocks are available when the coastal patrol boats become operational.

4. *Lightweight high-frequency radios ($8.0 million).*—These funds would procure additional lightweight high-frequency radios. These radios would replace the PRC-70 and PRC-74 models, which performed poorly during Operation Desert Shield/Desert Storm, and cover a projected shortfall of 560 radios that the Army will be unable to provide to special operations forces.

5. *Portable signals intelligence systems ($9.5 million).*—This initiative is discussed in the classified annex to this report.

6. *Deployable SOCRATES ($1.2 million).*—The Special Operations Command Research, Analysis, and Threat Evaluation System (SOCRATES) consists of computers, data bases, intelligence communications, secure phones, facsimile equipment, imagery processing and dissemination, and map handling. These funds would enable SOCRATES to be deployed to special operations units below the Service component headquarters level.

SQUAD ENGAGEMENT TRAINING SYSTEM

The National Guard is currently procuring a simulation system to train squads on small arms tactics and marksmanship proficiency. The committee believes this is an excellent example of the use of simulator technology for Guard and Reserve units and recommends $10.0 million to accelerate procurement of squad engagement training system units.

35TH INFANTRY TRAINING CENTER

Last year the Congress provided $1.0 million to complete the 35th Infantry Training Center in Leavenworth, Kansas. This center provides advanced brigade-level, battle staff training for the National Guard. These funds were never allocated to complete the project; instead, they were diverted for other programs.

The committee restates its belief that the 35th Infantry Training Center is precisely the kind of advanced simulation training activity that the Guard needs to develop its staff function skills. The committee recommends of $2.0 million, half to complete the project and half to establish a center of excellence for battle simulation for Reserve components based on the 35th Infantry Training Center model.

CHEMICAL DEMILITARIZATION

During a June 13, 1991 hearing, the Army informed the committee that its projected completion date for disposal of the unitary chemical stockpile has slipped from December 1998 to July 1999. The committee recommends a provision (section 107) that would amend section 1412(b)(1) of the Department of Defense Authorization Act for Fiscal Year 1986 (P.L. 99-145) to reflect this revised deadline. However, the committee notes that the recently reinvigorated multinational negotiations on an international convention banning the manufacture or stockpiling of chemical weapons will, if successful, establish a deadline for the elimination of chemical weapons stocks several years later than 1999. In this regard, the committee notes that paragraph (b)(2) of Public Law 99-145 provides: "If a treaty banning the possession of chemical agents and munitions is ratified by the United States, the date for completing the destruction of the United States' stockpile of such agents and munitions shall be the date established by such treaty."

The committee is concerned that recent delays and equipment problems in the operational verification testing (OVT) being conducted at the Johnston Atoll Chemical Agent Disposal System (JACADS) not result in excessive concurrency between the OVT program and the design of the chemical demilitarization facilities that will be constructed at eight continental United States (CONUS) locations. During the June 13 hearing, the Army testified that "The JACADS facility caused design changes for the follow-on facilities that will make the process safer and more reliable." With OVT now scheduled to continue through March 1992, the Army conceded that it was possible that additional design changes for the CONUS facilities could be generated between now and then.

Contracts for construction of the next CONUS facilities are due to be let in August 1992. Should additional delays or engineering problems in the OVT at JACADS occur, the committee urges the Army to delay issuance of these contracts if necessary to ensure that all required changes are incorporated in the design. Section 107 would also authorize the Secretary of Defense to provide funds through cooperative agreements with state and local governments to assist them in processing and approving permits and licenses necessary for the construction and operation of these facilities.

CHEMICAL ANTIDOTE AUTOINJECTORS

At a June 13, 1991 hearing, the Defense Department testified that during Operation Desert Shield/Desert Storm chemical antidote autoinjectors were identified as one of four critical "war stoppers." At the outbreak of this crisis, the United States was fortunate that U.S. manufacturers of this item were able to surge production to meet Service requirements. However, this fortuitous circumstance almost did not come to pass. Despite warnings that relying on intermittent Service orders would not prove sufficient to keep the U.S. manufacturers in business, the Defense Department in September 1989 terminated an innovative "readiness contract" approach that the Defense Logistics Agency had established in fiscal year 1989 as a means of maintaining a mobilization capability for this item. Had the U.S. manufacturers not chosen to incur losses through the spring and summer of 1990, there might well have been no production lines in operation when Iraq invaded Kuwait.

The committee is concerned that despite this near-miss, the Defense Department may again put the United States on a course that would eliminate any industrial base in this critical area with which to respond to a future chemically-armed adversary. With Service inventories bulging as a result of the Operation Desert Shield/Desert Storm buildup, Service orders for antidote autoinjectors will likely not be placed at levels adequate to sustain the U.S. manufacturers. Yet there has been no decision by the Defense Department to adopt a long-term approach for remedying this situation.

The committee directs the Defense Department to take necessary steps to ensure the maintenance and stability of the industrial base for this critical product. The committee directs the Secretary of Defense to submit a report to the congressional defense committees no later than December 31, 1991 on the approach it has selected and how that approach will be implemented.

INFLATABLE OR RIGID INFLATABLE BOATS

Section 7309 of title 10, United States Code, provides that "no vessel to be constructed for any of the armed forces, and no major component of the hull or superstructure of any such vessel, may be constructed in a foreign shipyard." This provision has not been changed since 1987.

In 1987, section 1103 of the National Defense Authorization Act for Fiscal Years 1988 and 1989 amended section 7309 of title 10. The phrase "no vessel to be constructed for any of the armed forces" replaced the phrase "no naval vessel and no vessel of any other military department." As explained in the report of the House Armed Services Committee (H. Rept. 100-58) and the statement of managers accompanying the conference report (H. Rept. 100-446), the only purpose of this change was to extend the statute's coverage to vessels constructed for the U.S. Coast Guard.

Despite the limited purpose of the 1987 change, the Navy has interpreted it to not only extend section 7309 to the Coast Guard but to encompass all vessels of the armed forces as well (rather than just "naval" vessels). According to the Navy's interpretation, section 7309 now covers inflatable or rigid inflatable boats. The Navy did not consider these boats to be subject to section 7309 before 1987.

The committee would like to clarify that in making the 1987 change, it did not intend to broaden the scope of section 7309 to include inflatable or rigid inflatable boats. Therefore, it recommends a provision that would specifically exempt such boats from section 7309.

REPEAL OF COMPARABLE BUDGETING FOR COMMON PROCUREMENT WEAPON SYSTEM PROVISION

In 1988, Congress enacted section 2217 of title 10, United States Code, in response to inconsistencies within the Department of Defense in the way common weapon systems were budgeted by the Military Departments. Since that time, the Department has developed guidelines to ensure that consistent procedures are followed. The committee no longer considers this provision necessary. In an effort to reduce unnecessary reporting requirements, the committee recommends a provision that would repeal section 2217.

INDEPENDENT COST ESTIMATING FOR MAJOR PROCUREMENT PROGRAMS

In 1983 the Congress required the Secretary of Defense to consider an independent analysis of the cost of any major weapon system before granting authority for the system to proceed into full-scale development or, subsequently, into full-rate production and deployment. This requirement is now codified in 10 USC 2434(c)(1). The Congress directed the Department of Defense to report annually to the Chairmen of the House and Senate Committees on Armed Services on the implementation of this provision. The Department submitted the required reports in 1984, 1985, and 1986. This reporting requirement was one of many reexamined in connection with the Goldwater-Nichols Defense Reorganization Act, and was discontinued for 1987 and subsequent years.

The committee believes that the essential requirements of 10 USC 2434(c)(1) are met as long as the Office of the Secretary of Defense (OSD) Cost Analysis Improvement Group (CAIG) independently reaches its own conclusions regarding the accuracy and completeness of a weapon system's cost data, and the CAIG communicates its findings to those responsible for the acquisition decision. This was the essence of the system in place at the time the last report was submitted to the Congress (1986), and several features have since been strengthened by DOD. The committee endorses the essential features of this important process.

TITLE II—RESEARCH, DEVELOPMENT, TEST AND EVALUATION

The recommendations of the committee for the research, development, test and evaluation of various defense weapons and equipment appear in this title of the report.

EXPLANATION OF TABLES

The tables in this title display items requested by the administration for fiscal year 1992 for which the committee either increased or decreased the requested amounts. Items that are not displayed have been approved by the committee in the amounts requested in the Department of Defense's amended budget justification documents. As in the past, the administration may not exceed the amounts approved by the committee (as set forth in the tables or, if unchanged from the administration's request, as set forth in the Defense Department's amended budget justification documents), without a reprogramming action in accordance with established procedures.

NON-COOPERATIVE TARGET RECOGNITION AND COMBAT RULES OF ENGAGEMENT

Twenty years ago, a high-level NATO task force identified combat identification as one of the primary weaknesses in the alliance. With the advent of beyond-visual-range weapons and nighttime combat operations, alliance forces faced a serious risk of shooting down friendly aircraft for lack of a reliable means to identify friend from foe (IFF).

Operation Desert Shield/Desert Storm brought that situation to a sharp focus. Commanders adopted stringent rules of engagement for combat identification that imposed serious operational limits on some of our weapon systems that lack effective IFF systems.

This spring, the Defense Department terminated its primary IFF system, the Mark XV system, because of its expense and the lack of parallel commitment in other countries to this approach to combat identification. The committee considers this area in disarray. There is no coordinated Department-wide approach to this problem, with each of the Services pursuing separate uncoordinated efforts emphasizing differing approaches. No one in the Department seems to be in charge, despite the fact that a Defense Science Board roundly criticized the Department two years ago for inaction.

Obviously a new organizational approach is needed, since previous and current development efforts have been ineffective. The committee believes that the Operation Desert Shield/Desert Storm rules of engagement and operational approaches represent a good starting place. The committee directs the Chairman of the Joint

Chiefs of Staff to organize a special team to focus on the combat identification problem. That team should be comprised of representatives from the unified warfighting commanders. The study should analyze the likely rules of engagement in each of the theaters and determine the ability of current and programmed combat identification systems and procedures to support those rules of engagement. The team should then evaluate each of the Service's combat identification programs to determine how well they meet the unified commanders' requirements and what changes should be adopted or what gaps in capability need to be filled.

SOLDIER/MARINE ENHANCEMENT PROGRAM

In 1989, the committee started the Soldier/Marine Enhancement Program to provide better weapons and equipment for the individual soldier and Marine. Prior to this point, the Services had not provided sufficient funds to test and evaluate off-the-shelf equipment for the individual soldier and Marine.

This program demonstrated its success during Operation Desert Shield/Desert Storm. Several Soldier/Marine Enhancement Program items—such as the desert boot, desert uniform, and better goggles—helped improve the combat effectiveness of individual soldiers. At the same time, the Services have tested and evaluated dozens of other promising items.

As a result of the success of this program, the committee recommends an additional $30.0 million to continue the program in fiscal year 1992 and $60.0 million in fiscal year 1993.

In testimony before the committee, General Schwarzkopf noted that the Army ration system used during Operation Desert Shield/Desert Storm needs improvement. The committee recommends that the Soldier/Marine Enhancement Program give priority to survey ways to adapt existing commercially available rations to the military. Also, in hearings before the committee, several Marines testified that their front-line ground combat units needed better reconnaissance information. The committee understands that several lightweight, hand-held video transmission systems are currently available. This is precisely the kind of program the Soldier/Marine Enhancement Program was designed to evaluate.

The committee restates its view that the purpose of the Soldier/Marine Enhancement Program is not to fund the development of new items of equipment, but to test and evaluate existing prototypes or commercially available items. The focus of the Soldier/Marine Enhancement Program is to maximize the use of non-developmental and off-the-shelf items. The committee notes that some of the funds have been used to continue to develop items that were initially in the budget request but were dropped because of funding constraints. This approach is inconsistent with the intent of the program.

The committee is also concerned about the Services' commitment to procure in quantity items identified as desirable under the Soldier/Marine Enhancement Program. It should not take another Operation Desert Shield/Desert Storm to demonstrate to the Army and the Marine Corps that they need to pay consistent and focussed attention to the needs of infantrymen.

JOINT TACTICAL AIR-TO-SURFACE WEAPONS OFFICE

Last year, the Congress directed the Air Force and the Navy to establish a joint tactical air-to-air missile office (JTAAMO) to coordinate and consolidate parallel and redundant development programs for air-to-air missiles. The committee is gratified by the success of the joint office and commends the Air Force and the Navy for taking constructive steps to implement the joint office.

The committee notes that the Navy and the Air Force are working on parallel development programs for a new generation of air-to-surface weapons. The committee believes that the Navy and the Air Force should establish a joint office for oversight of air-to-surface weapons, patterned after the JTAAMO.

Accordingly, the committee directs the Secretary of the Navy and the Secretary of the Air Force to establish the joint tactical air-to-surface weapons office (JTASWO), with the charter of providing a consolidated road map for the development of all Navy and Air Force air-to-surface weapon systems. That road map should be submitted to the congressional defense committees not later than February 1, 1992.

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
		ARMY R&D CHANGES						
5	62105A	MATERIALS TECHNOLOGY	11,537	4,000	15,537	12,140		12,140
7	62122A	SURVIVABILITY ENHANCEMENT	5,769	18,500	24,269	6,338	16,000	22,338
19	62709A	NIGHT VISION TECHNOLOGY	30,005	5,000	35,005	27,138		27,138
28	62787A	MEDICAL TECHNOLOGY	89,579	2,000	91,579	94,764	1,000	95,764
34	63004A	WEAPONS AND MUNITIONS ADVANCED TECH	40,865	3,000	43,865	51,645		51,645
41	63017A	TRACTOR RED	6,721	5,000	11,721	1,005		1,005
42	63102A	MATERIALS AND STRUCTURES ADVANCED TECH	2,870	5,000	7,870	3,227		3,227
42a	62XXXA	PRECOMPETITIVE TECHNOLOGY		10,000	10,000		10,000	10,000
47	63313A	MISSILE AND ROCKET ADVANCED TECHNOLOGY	19,506	25,000	44,506	21,998		21,998
51	63606A	LANDMINE WARFARE AND BARRIER ADV TECH	8,728	10,000	18,728	9,434	10,000	19,434
53	63710A	NIGHT VISION ADVANCED TECHNOLOGY	22,620	10,000	32,620	28,984		28,984
70	63645A	ARMORED SYSTEMS MODERNIZATION–ADV DEV	400,808	49,300	450,108	352,462	15,500	367,962
77a		FAAD ALTERNATIVES		10,000	10,000			
82	63802A	WEAPONS AND MUNITIONS – ADV DEV		6,000	6,000			
96	64321A	JOINT TACTICAL FUSION PROGRAM	130,775	-21,500	109,275	76,585		76,585
99	64604A	MEDIUM TACTICAL VEHICLES	11,879	11,600	23,479	6,000		6,000
101	64611A	ADVANCED ANTI–TANK WEAPON SYS–ENG DEV	120,412	-70,900	49,512	57,080		57,080
109	64715A	NON–SYSTEM TRAINING DEVICES – ENG DEV	51,266	10,000	61,266	43,599	25,000	68,599
118	64768A	TRACTOR MARK	116,341	8,000	124,341	119,508		119,508
119	64769A	TRACTOR HELM	66,973	35,000	101,973	101,166	26,100	127,266
120	64770A	JOINT SURVEILL/TARGET ATTACK RADAR SYS	48,721	25,000	73,721	35,423	35,000	70,423
135	64816A	LONGBOW – ENG DEV	233,201	34,500	267,701	263,978	21,000	284,978
144	23740A	MANEUVER CONTROL SYSTEM	31,439	5,000	36,439	29,277		29,277
156a		INTEGRATED DEVELOP, TEST & TRAINING SYS		15,000	15,000			
156b		SOLDIER ENHANCEMENT PROGRAM		18,000	18,000		36,000	36,000
998		INTELL & COMMUNICATIONS CLASSIFIED	7,269		7,269	7,340	--	--
164	65103A	RAND ARROYO CENTER	19,974	3,826	23,800	20,581	4,419	25,000
165	65301A	ARMY KWAJALEIN ATOLL	181,464	-2,000	179,464	196,031		196,031
168	65602A	ARMY TECH TEST INSTRUMENT & TARGETS	103,739	-9,000	94,739	90,065		90,065
186	78011A	INDUSTRIAL PREPAREDNESS	21,058	-21,058		28,111	-28,111	
		DBOF– TECHNICAL CORRECTION: DTIC		7,300	7,300		7,100	7,100
		DBOF– TECHNICAL CORRECTION: IACS		3,200	3,200		4,000	4,000
		DBOF– DIRECT FUNDING FOR DCAA/DCMC					-86,700	-86,700
		TOTAL R,D,T & E ARMY		214,768			96,308	

ARMY ROTOR CRAFT CENTERS OF EXCELLENCE

The committee is pleased with the Army's support of programs that have contributed important technological advances in rotorcraft engineering. Centers of Excellence established to further this important technology have succeeded in attracting private sector funding as each center has developed its own set of distinctive programs. These centers are the only national research effort within institutions of higher education that examine rotorcraft-specific technologies. These centers are uniquely positioned to provide highly-trained, newly-graduated engineers to industry and to develop technological advances in rotorcraft engineering.

The committee believes that the physical and intellectual infrastructure in rotorcraft engineering that is available through these rotorcraft centers is a national asset that should be preserved. The committee believes that it is in the nation's best interest, considering the armed forces' increasing dependence on rotorcraft technology, for the Army to continue funding these rotorcraft centers of excellence.

ARMY ADVANCED MATERIALS TECHNOLOGY

The committee is aware of the critical importance of the research and development on advanced materials conducted by the U.S. Army for both the DOD and NASA. The committee is encouraged by the performance and cost-reduction advances demonstrated by these efforts but is concerned that funding for advanced composites technology has not been sufficient to maintain our nation's lead in this critical technology.

To ensure that advanced composites materials technology programs are adequately funded to make advanced composites available for DOD and NASA requirements in the mid–1990s, the committee recommends an additional fiscal year 1992 authorization of $4.0 million for the Army's materials technology program (program element 602105A).

FLAME AND INCENDIARY TECHNOLOGY PROGRAMS

Information provided to the committee on the Army's flame and incendiary technology programs indicates that these programs are showing a great deal of progress. The committee notes, however, that there are currently no useful, operational flame weapons for ground combat forces. Therefore, the committee recommends that of the funds authorized under the program element for chemical, smoke and equipment defeating technology (62622A), $2.0 million shall be made available for the specific purpose of accelerating development of the Army's incendiary projectile and follow-through shaped charge element of the flame and incendiary technology program.

AUTOMATIC TARGET RECOGNITION

Operation Desert Shield/Desert Storm showed the potential of smart munitions. Current generations of smart munitions still require the launching aircraft or vehicle to accept some degree of vulnerability while the munition is guided to its target. For several years, the Services have promoted autonomous guidance systems, but these systems tend to be extremely expensive.

The committee believes that one of the most promising avenues for development is in the area of low cost autonomous guidance systems. The committee understands that the Army Center for Night Vision and Electo-Optics is on the forefront of exploring low cost solutions for autonomous guidance. The development of these low cost autonomous guidance programs is currently limited by funding shortfalls rather than program problems. In order to accelerate the current schedule for low cost autonomous guidance development programs, the committee recommends an additional authorization of $5.0 million in the Army's night vision program.

MEDICAL LASER TECHNOLOGY

The committee recognizes that combat burns are a major source of military personnel field injuries requiring specialized treatment procedures. With advancements in modern weapons, it is anticipated that burn injuries will become an even greater problem in military medicine. Therefore, the committee believes that research for the treatment of burns should be encouraged.

The committee is aware that recent developments in laser medicine, using so-called "smart lasers", have led to new diagnostics and therapeutic treatments for burn victims with significantly higher potential for success. The committee recommends an additional authorization of $2.0 million for fiscal year 1992 and $1.0 million for fiscal year 1993 to support advanced laser burn treatment diagnostics and therapeutic research under the Army's medical research program (program element 602787A). Grants awarded using this funding shall be made on a merit-based basis to one or more hospital-based institutions which have demonstrated expertise in medical laser system development and are recognized for their expertise in the diagnosis and treatment of burns. The treatment of burn injuries requires both rapid diagnosis of burn depth for triage and improved surgical stabilization of the burn victim. Only proposals demonstrating such an understanding and expertise in both diagnostic and laser surgical therapy should be considered.

WEAPONS AND MUNITIONS ADVANCED TECHNOLOGY

While the Multiple Launch Rocket System (MLRS) proved highly effective in Operation Desert Shield/Desert Storm, the Army has restated its interest in developing an extended range variant of the rocket. The committee recommends an increase in authorization of $3.0 million to undertake this modest but important improvement.

MATERIALS AND STRUCTURE ADVANCED TECHNOLOGY

In recent years, the American metal industry has demonstrated substantial advances in ductile iron that provides the strength and durability of forged steel at substantially reduced weight and cost. Ductile iron offers potential for a wide range of products currently utilizing forged steel, including track for combat vehicles, suspension components, and projectile bodies for large caliber ammunition. The committee is persuaded there is substantial promise to this technology and recommends an authorization of $5.0 million to explore applications for ductile iron.

MULTI-PURPOSE INDIVIDUAL MUNITION

The committee understands that the three candidate systems for the Army's multi-purpose individual munition (MPIM) program failed to meet the minimum requirements necessary to proceed to full-scale development. The committee continues to believe that the Army has an urgent requirement for a shoulder-fired or rifle-launched weapon that will defeat lightly-armored vehicles, bunkers, and concrete or brick walls.

While the Army concluded that none of the MPIM candidates justified full-scale development, the Army believes that the urgency of the requirement justifies continuing the program in the technology base. The Army has proposed to reprogram $13.0 million in fiscal year 1991 for this purpose. The committee approves that reprogramming request.

The committee believes that the Army has not given a high priority to the MPIM program. Even though the program is to continue in the technology base, the committee expects the Army to provide focused support and responsible management oversight of this program.

LANDMINE WARFARE

One of the important "lessons learned" of Operation Desert Shield/Desert Storm is the need for the Army to conduct more rigorous efforts in countermine warfare. Operation Desert Storm demonstrated again that hostile countries can utilize inexpensive mines in potentially devastating ways that could dramatically affect the ability of our forces to conduct their missions.

During the months of preparation, the Army conducted extensive analysis of Iraqi mine and barrier systems and developed detailed operational procedures at the National Training Center to deal with these barriers. Much of this analysis, however, was unique to desert warfare. The budget that was submitted by the Army did not incorporate ongoing lessons learned in this area. Consequently, the committee recommends an additional $10.0 million for landmine warfare in fiscal years 1992 and 1993 to formalize the breakthroughs in countermine warfare developed during Operation Desert Shield/Desert Storm, and to initiate more aggressive technological efforts to neutralize advanced land mines.

ARMORED SYSTEMS MODERNIZATION

The committee notes that one of the clear lessons learned from Operation Desert Shield/Desert Storm is the unequivocal value of technological superiority. It is with this appreciation that the committee continues to support the Army's plan to field a generation of new ground combat systems under the Armored Systems Modernization (ASM) program. Despite this appreciation for technological superiority, the committee continues to have reservations about the ASM program.

First, the ASM program was launched three years ago when U.S. intelligence forecasts projected an unrelenting modernization program by the Soviet army. Such forecasts are no longer credible.

Second, the ASM program continues to be plagued by inconsistencies. For example, the ASM tank is required to have heavy armor protection. At the same time, the Line-Of-Sight Anti-Tank (LOSAT) system, which certainly is more threatening to enemy tanks than is the new block 3 tank and would effectively accompany tank forces, is scheduled to have only a medium protection vehicle. Similarly, the artillery system, which does not normally operate in the direct fire area of the battlefield, is scheduled to have heavy armor protection, but the ammunition resupply vehicle for the artillery system is not.

Third, the ASM program lacks balance. Disproportionate emphasis rests with a new generation tank and infantry fighting vehicle, yet these are two of the most modern systems in the Army. By contrast, U.S. artillery systems are relatively obsolete, yet the Advanced Field Artillery System (AFAS) is structured to follow the tank program. And other pressing heavy force modernization requirements—such as the urgent need for a new recovery vehicle—are not even included in the ASM program.

Fourth, as the design threat slips further into the future, the ASM development program stretches excessively. The current plan calls for development programs lasting 11 to 12 years. These glacial development schedules include effectively two separate back-to-back prototyping efforts for each vehicle. While six- to eight-year long development efforts are plausible for complex integrated weapon systems like tanks, it is hard to see why a counter mobility vehicle (CMV) should require even half the time that is currently scheduled for it in the ASM program.

Fifth, there is no apparent investment strategy that relates the ASM modernization program to ongoing upgrade programs in the context of a fragile and eroding industrial base. The tank and fighting vehicle industries will be dismantled five to eight years before production of replacement systems enter production, yet the Army is unable to identify the industrial foundations that will be lost and must be recreated in order to build ASM vehicles.

As stated earlier, the committee fully appreciates the need for technological superiority for ground combat forces and supports an ASM modernization effort. These concerns, however, lead the committee to ask fundamental questions about the Army's plans. The committee directs the Secretary of the Army to reassess the ASM program. That review must begin with a fresh assessment of the threat. Second, the Secretary should develop an integrated modernization program that relates the ASM program to product improvements to current systems, with particular emphasis on preserving the core of a viable industrial base. Third, the Secretary should examine the scope and balance of the current ASM program to determine if the most pressing requirements are included, and whether the schedule within the ASM program reflects the true urgency of modernization requirements.

ADVANCED FIELD ARTILLERY SYSTEM

Last year the committee expressed concern with the Army's plan to field a new artillery system as part of the overall Armored Systems Modernization (ASM) program. The committee concluded that the Army had awarded insufficient priority to the Advanced Field Artillery System (AFAS), suggested that it be accelerated relative to other elements of the ASM program, and authorized additional funds to accelerate AFAS.

The committee notes that in relative terms the timing for development of a new artillery system has moved up relative to the development of the new tank and fighting vehicle, but that reflects primarily a stretch-out in the development of the tank and fighting vehicle rather than an acceleration of AFAS. The committee understands that the Defense Department reduced the funding request in fiscal year 1992 for AFAS to compensate for additional funds provided last year to accelerate development of the program. The committee rejects this "bean-counting" approach to program oversight in the Department.

One of the clear lessons learned from Operation Desert Shield/Desert Storm is the need for improved artillery systems for the Army. The Army increased the quantity of artillery systems over normal strength levels and relied heavily on artillery to suppress enemy defenses.

The committee restates its belief that artillery modernization needs to receive a higher priority within the Department. The committee recommends an increase in authorization of $49.3 million in fiscal 1992 and $15.5 million in fiscal year 1993 to offset the reduction in propellant development, to mature the fire control system, and to accelerate the delivery of the AFAS prototype chassis.

The committee notes that the Army has been developing two alternative technologies as a propellant for the AFAS—liquid propellant and a solid propellant known as "Unicharge." The committee understands that liquid propellant offers substantial operational and logistics benefits compared to traditional powder charges, but cannot readily be retrofitted for use on older howitzers. By contrast, Unicharge is easily retrofitted, but offers less of a technical advance compared to liquid propellant. The committee concludes that the unique benefits of each technology overrides the benefits to be gained by competing and selecting only one of them. The committee directs the Army to carry forward both technologies, reprogramming funds if necessary.

FORWARD AREA AIR DEFENSE ALTERNATIVES

The committee understands that the Army is continuing to evaluate the forward area air defense system known as air defense anti-tank system (ADATS). The committee supports the ongoing evaluation of the ADATS system, but reserves its judgment on procurement until the Army demonstrates that ADATS has successfully met operational and reliability requirements.

The committee is concerned, however, that if ADATS does not meet those requirements, the Army will be left again with yet another gap as it seeks to develop alternatives for an air defense system for forward maneuver units. Last year, the committee recommended the examination of the pedestal mounted Stinger (PMS) system fitted on an armored chassis. Since that time, the committee has learned of several other alternatives, including a command-guided variant of the Chapparal missile, a variant of the Marine Corps air defense variant on the light armored vehicle (LAV–AD), and several foreign-developed missiles, that might be adapted for this purpose. The committee recommends an authorization of $10.0 million to explore these alternatives.

BUNKER DEFEAT MUNITION

The committee is concerned that the Army has been unable to develop a system to replace the interim AT–4 and does not now have a light, individual, single-shot weapon to destroy field fortifications and to breach walls and other obstacles.

The committee understands that variants of at least two currently fielded systems (AT–4 and SMAW) might be adapted to meet this need. In addition, interim systems might be derived from the candidate systems developed under the multi-purpose individual munition (MPIM) program.

Therefore, the committee recommends $6.0 million for competitive side-by-side tests of existing or derivative weapons, to include AT–4, SMAW, or any proposed weapon of this class from recent MPIM proof-of-principle developmental efforts.

Candidate weapons will be provided on a non-developmental basis within nine months of solicitation. The Army shall limit any expenditure of funds to test and evaluation only and shall not obligate funds to develop any candidate system. None of the funds may be expended in conjunction with these tests until 15 days after the Army submits to the congressional defense committees requirements specifications for an interim weapon, including descriptions of the types of targets intended to be defeated by the candidate weapons.

The committee intends that these tests will not detract in any way from continuing efforts to develop the MPIM.

ALL SOURCE ANALYSIS SYSTEM

Operation Desert Storm validated the need for an automated intelligence analysis system that can process large volumes of data produced by tactical and strategic collection systems and distribute that information promptly to users.

Operation Desert Storm also revealed a fundamental weakness in the All Source Analysis System (ASAS) program. Despite nearly a decade in development and hundreds of millions of dollars, the Army could not use ASAS in Southwest Asia. In its place, the Army turned to a program called Hawkeye that was developed within the Balanced Technology Initiative. The Hawkeye system uses widely-available microprocessor computer technology to automatically analyze reports of signals intelligence collection devices, help analysts process reports and messages, and correlate and update data bases.

Largely as a result of Operation Desert Storm, the Army decided this spring to fundamentally restructure its ASAS. The restructured program effectively merges the ASAS and the Hawkeye system.

The committee supports this consolidation, though it continues to have reservations about the program. First, despite the Army's direction to merge the two programs, program management continues to reside effectively with the old ASAS office. The committee is concerned that the old ASAS program office may attempt to rehabilitate the ASAS rather than expand the capabilities of the Hawkeye system.

Second, the committee is concerned about technical management of the program. The Army has decided to terminate the involvement of the prior prime contractor, but does not intend to introduce a follow-on prime contractor until the program proceeds to the so-called "block 2" phase in which an integrated ASAS/Hawkeye is to be converted to common hardware. This is a period of substantial transition and technical complexity, and the committee questions whether the Army needs more direct technical assistance than it currently plans to have to support the program.

Third, the committee questions the reason for continuing to maintain program management under the Army's Command and Control Program Executive Office rather than with the Intelligence and Electronic Warfare Program Executive Office. Ultimately, the Army must decide where management should reside, though many outside experts consulted by the committee are convinced that many of the problems of the ASAS program could be traced to the fact that it was not managed by the proper center within the Army acquisition system.

The committee also raises a broader philosophical concern about the ASAS program. The ASAS was designed to be a highly sophisticated central processing point for massive amounts of intelligence data. Once collected and processed, the ASAS was supposed to distribute highly refined intelligence information. One of the themes that has emerged in the committee's survey of Operation Desert Storm is an alternative approach to tactical intelligence in which rather limited processing is conducted on or near the collection platform and semi-refined reports are transmitted in a "broadcast" format. This alternative approach may not require highly complex and sophisticated "fusion centers," especially for targeting and maneuver functions.

The committee supports the restructured ASAS program, with the reservations noted above. The committee suggests that the Army's Acquisition Executive direct the Army Science Board to review these concerns and to report to him on the course and direction of the ASAS program in light of these concerns.

The committee recommends a reduction of $21.5 million in research and development in light of savings identified by the Army. The committee notes that the Army will be able to save $170.0 million in programmed procurement for ASAS as a result of the restructuring and will be able to field an ASAS capability to so-called "force package one" units with existing assets. The committee applauds this sensible restructuring of the program. The committee will consider the Army's proposals for further procurement and enhancement of the hybrid ASAS in light of the findings of the Army Science Board.

MEDIUM-TRUCK SERVICE LIFE EXTENSION PROGRAM

The amended budget request contained $3.0 million to evaluate the cost effectiveness of a service life extension program (SLEP) for the Army's fleet of medium tactical trucks. The committee supports this effort and believes the development program should be accelerated in order to determine whether or not a truck SLEP can extend the life of a truck by 80 percent at 50 percent of the cost of a new truck. In order to accelerate the program, the committee recommends an increase of $9.1 million in fiscal year 1992.

During Operation Desert Shield/Desert Storm, the high mobility multipurpose wheeled vehicle (HMMWV) proved its mobility, durability, and reliability in the harshest operational conditions. Given the performance of the HMMWV in southwest Asia, the committee believes that a variant of the HHMWV—the Heavy HMMWV variant (HHV)—should be evaluated as one of the candidates in the truck SLEP program. A heavy HMMWV variant, with a 2½ ton payload, could provide common logistics and operational flexibility for Army units, especially lighter units. Therefore, the committee directs the Army to include the heavy HMMWV in the truck SLEP program and recommends an authorization of $2.5 million to procure HHV cab-over-engine trucks for test and evaluation.

The committee understands that $15.0 million originally appropriated to procure trucks for the National Guard remains unobligated and can be transferred to the SLEP. Consequently, the committee recommends that $11.6 million of the fiscal year 1991 National Guard funds be transferred to the Research and Development, Army account to accelerate the truck SLEP and to include the HMMWV variant in the test program.

The committee is concerned that a SLEP for medium trucks not affect adversely the Family of Medium Tactical Vehicle (FMTV) program. After-action reports from the Persian Gulf indicate the high levels of performance of the heavy truck fleet and the light truck fleet, both of which have been modernized. It is essential that the Army modernize the medium fleet with new, modern trucks and that the SLEP be used only to upgrade minimal numbers of 2½ ton trucks.

ADVANCED ANTI-TANK WEAPON SYSTEM-MEDIUM

The committee understands that the advanced anti-tank weapon system-medium (AAWS-M) has encountered substantial technical problems in development. The development program has recently been extended from 36 months to 56 months. At this point, it is unclear whether the technical problems facing development of the seeker—the heart of the system—will be resolved. The committee concludes it is pointless to increase research and development funding as proposed by the amended budget request until these technical problems with the seeker are resolved. The committee notes that the original budget request is sufficient if focused on resolving the seeker problems. The committee will consider a reprogramming request to increase development if the Army demonstrates it has resolved the problems with the seeker.

The committee also believes that requirements for the system should be thoroughly examined. If most of the critical requirements can be met with the quality of seekers currently attainable, consideration should be given to fielding the system as close as possible to the original schedule, then introducing higher quality seekers at a later date selected by the Army.

CLOSE COMBAT TACTICAL TRAINER

The Army has adopted an acquisition approach for future distributed tactical simulators under the close combat tactical trainer (CCTT) program. The CCTT program is designed to field a more comprehensive simulator based on the path-breaking developments produced by the Defense Advanced Research Projects Agency in the SIMNET program.

The committee strongly supports the emphasis that the Army is giving to distributed tactical trainers. Unfortunately, the current Army plan calls for fielding the new simulators in the fall of 1998! Last year, the committee criticized the Army for adopting a glacial approach to the CCTT program when it planned to field the system in 1996. In the intervening six months, the program was stretched two years. Non-programmatic budget reductions by the Office of the Secretary of Defense were a major factor contributing to this stretch-out.

The committee restates its belief that distributed simulation is a key to preserving warfighting readiness in combat units when opportunities for large-scale field exercises are shrinking. The committee also believes that such distributed simulation technology is a key way for improving the combat proficiency and readiness of National Guard and Reserve units.

The committee understands that the Army has developed an acceleration program called "quick start" which would field in 1995 prototype simulators for early operational testing. The committee strongly supports this quick start program and recommends an increase in authorization of $10.0 million in fiscal year 1992 and $25.0 million in fiscal year 1993 to accelerate the program.

TACTICAL RADAR CORRELATOR

The Army has developed a deployable ground station able to receive and process synthetic aperture radar (SAR) imagery collected from the TR-1/U-2 aircraft. This tactical radar correlator (TRAC) performed well in the Persian Gulf war.

While deployable, however, TRAC can and should be smaller. The Defense Department has been developing technology for small phase history processors both for SAR processing on-board the collection platform and for downsizing SAR ground stations.

The committee believes that the Army is best suited to develop this technology for the SAR ground stations. However, the committee directs the Army TRAC program office and the joint service imagery processing system (JSIPS) program office to resolve, formally and clearly, mutual responsibilities for developing a common processor that functions with JSIPS.

The committee expects this effort to be fully coordinated with other programs that are developing small phase history processors for on-board imagery processing. On-board phase history processing and data compression must be implemented to permit the consolidated airborne reconnaissance fleet to conduct line-of-sight and remote operations with a full sensor complement and without relying on national intelligence communications systems.

LIGHTWEIGHT JSTARS TERMINAL

The committee has been gratified to learn of the substantial success of the joint surveillance and target acquisition radar (JSTARS) system in Operation Desert Storm. JSTARS ground terminals provided corps commanders with unprecedented knowledge about enemy movement and activity.

During the committee's survey of "lessons learned" from Operation Desert Storm, it became clear that JSTARS-type information was widely needed at lower operational levels than can currently be provided because of the size and expense of the current terminals.

The committee believes the Army should initiate development of a lightweight JSTARS terminal that can be fielded in larger quantity at lower operational levels. A lightweight JSTARS terminal would not require all of the functions of the current terminals. Consequently, the committee recommends authorization of $25.0 million to initiate a lightweight JSTARS terminal development effort.

FIBER OPTIC GUIDED MISSILE

The committee notes that the Army terminated the fiber optic guided missile (FOGM) program this spring because of serious development problems and cost overruns. The committee has long supported the program and expresses its disappointment that the program had to be terminated.

The committee notes that termination has left the Army with a substantial investment in partially completed units. The committee believes that the Army should initiate a limited effort to build a quantity of prototype missiles based on the existing initial operational evaluation (IOE) design and incorporate any existing equipment and components left over from the canceled program. These prototype missiles should be used to determine the true scope of the operational promise of FOGM technology.

The committee notes that the administration had proposed to rescind $50.0 million of FOGM funds from fiscal year 1991. The committee directs that $25.0 million of those funds be used to initiate this austere proof-of-principle demonstration program.

The committee is concerned, however, about the Army's proposed operational concept and the cost-effective conversion of FOGM technology to an operationally useful weapon. The committee directs that not more than $12.5 million may be obligated until 30 days after the Army Acquisition Executive has transmitted to the congressional defense committees the conceptual organization and operations concept for the system and a test plan for the austere proof-of principle demonstration program.

AIR-TO-AIR HELICOPTER DEFENSE

The Army has reported to the committee that it is reconsidering its earlier plan to install air-to-air missiles on Army helicopters.

The committee understood the Army's earlier plan to be based on a thorough analysis of future warfighting needs, and views this current reconsideration with concern.

The committee remains convinced that Army and Marine Corps helicopters should have air-to-air missile capability. Indeed, the Army should consider missile technology that is complementary to the current heat-seeking missiles. The committee recommends an authorization of $3.5 million to study alternative missile systems to complement the current air-to-air Stinger program.

TOW SIGHT IMPROVEMENT PROGRAM

The amended budget request includes $106.0 million in Other Missile Product Improvements, of which $65.0 million is designated for the TOW sight improvement program (TSIP). This program is intended to improve the target acquisition capability of the current TOW system under obscuration. Other benefits include automatic tracking, multiple launch capability, improved hit probability, and integration of day and night sights on the Ground/HMMWV TOW, which will improve performance and training and reduce logistics requirements.

The committee understands that the Army has not yet determined the final acquisition objective for the improved sights, but believes that, in light of some promising technology which has been demonstrated, it is prudent to begin development. The committee therefore supports the amended budget request for the TSIP and directs the Army to report not later February 28, 1992, on the acquisition objective and acquisition plan for the improved sights.

The committee notes that the TOW system is widely used in the Army and Marine Corps, and proved effective in Operation Desert Storm. The committee believes the TOW site improvement program will provide a major upgrade to the thousands of TOW launchers, ensuring their continued effectiveness against heavy armor.

AVOIDING FRIENDLY FIRE CASUALTIES

The Services took extraordinary steps during Operation Desert Storm to avoid casualties caused by friendly fire. Losses to friendly fire were low by historical standards, but everyone acknowledges the need to make progress in developing an affordable and effective identification system to avoid friendly fire casualties.

The committee understands that during Operation Desert Shield, the Defense Advanced Research Projects Agency (DARPA) accelerated an effort to field an identification system. While 5,000 of these units were ultimately built, only a few hundred were manufactured in time for Operation Desert Storm. These 5,000 units are now in storage.

The committee directs the Director of DARPA to release those identification units to the Army for distribution to combat elements of its contingency corps. This action will provide a viable identification system for contingency corps units in the interim while more advanced systems are developed for wider distribution. The committee also believes the Army should distribute these units at the National Training Center to gain experience with combat identification systems.

The Secretary of the Army shall report to the congressional defense committees on the implementation of this direction and the steps that are being taken to develop a more advanced combat identification system.

USING MODELING AND SIMULATION IN THE ACQUISITION PROCESS

One of the offshoots of the DARPA SIMNET program is the use of SIMNET-like simulators (called SIMNET–D for developmental) to evaluate promising design approaches to new weapon systems. New capabilities can be evaluated on a computerized battlefield under near-realistic conditions. Engagements can be "fought" repeatedly and under differing conditions to determine the likely performance advantage of the new equipment. Obviously, such simulator-based testing saves scarce development funds and produces a more focused development program once it is undertaken.

The experience with SIMNET–D has shown that the traditional distinctions among development, testing, and training are less relevant as all three activities rely increasingly on the use of advanced computer-based "virtual worlds" to design weapons, test them operationally, and train military personnel to use them once fielded.

The committee understands that the Army has evaluated ways to implement a totally integrated design, development, test, and training system on an experimental basis for future weapon systems. The committee is also aware of a proposal from the University of Texas to procure a facility that has simulation capabilities. The committee is concerned, however, that the proposal by the University of Texas emphasizes buying a surplus facility only and does not represent a coherent program on the part of the Army.

The committee supports the Army's efforts to develop an advanced integrated design, development, test, and training system and recommends an authorization of $15.0 million for that purpose. The committee cautions the Army that it should establish a concept, set a goal, and develop a program before it procures a building and tries to find out what to do with it.

RESEARCH AND TESTING IN COLD ENVIRONMENTS

For the past eight years, the Army Tank and Automotive Command has operated a cold environment test facility at the Keweenaw Field Station (KFS) in Michigan. The Army currently plans to close the field station in 1993 and turn it over to Michigan Technological University. The Army has indicated that it continues to need a test facility like the KFS. The committee directs the Army Acquisition Executive to examine the Army's plans for cold weather testing of vehicles, including how it intends to meet cold weather testing requirements after the Army turns over the KFS to Michigan Technological University.

ARMY REPROGRAMMINGS

The Department of Defense has submitted an omnibus reprogramming request for fiscal year 1991. One element of that reprogramming would reclassify all line of sight anti-tank (LOSAT) fiscal year 1991 full-scale development funds for the line of sight anti-tank (LOSAT) weapon (program element 64819A) into the advanced anti-tank weapon systems program (program element 63612A). This action would transfer $30.5 million from full-scale development for LOSAT to advance development. The committee supports that transfer and directs the Comptroller of the Defense Department to implement it as soon as possible.

A second element in the reprogramming request would transfer $54.5 from program element 64819A to program element 63813A. This action reflects a change in the development status of a classified program. There is no underlying programmatic change in the program. The transfer is required, however, to properly align the appropriated funds with the status of the program. The committee supports that transfer and directs the Comptroller to implement it as soon as possible.

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
		NAVY R&D CHANGES						
2	61153N	DEFENSE RESEARCH SCIENCES	395,767	10,000	405,767	416,678		416,678
16a	62XXXN	PRECOMPETITIVE TECHNOLOGY		20,000	20,000		20,000	20,000
		SEALAR		15,000	15,000			
58	63261N	TACTICAL AIRBORNE RECONNAISSANCE	15,574	9,200	24,774	15,537	8,200	23,737
66a		MINE COUNTERMEASURES INITIATIVE FUND		30,000	30,000		30,000	30,000
78	63551N	LINK SAKI	24,859	-19,859	5,000	46,167	--	--
80	63561N	ADVANCED SUBMARINE SYSTEM DEVELOPMENT	35,621	30,000	65,621	108,533	30,000	138,533
82b		FAST SEALIFT TECHNOLOGY		15,000	15,000		15,000	15,000
82c		MINE COUNTERMEASURES SUPPORT SHIP DESIGN		10,000	10,000			
94	63635M	MARINE CORPS GROUND COMBAT/SUPPORT SYS	9,319	2,500	11,819	10,738	9,800	20,538
101	63709N	ADVANCED MARINE BIOLOGICAL SYSTEM	1,868	3,000	4,868	906	4,000	4,906
113	63746N	RETRACT MAPLE	216,173	-20,000	196,173	228,611	-25,000	203,611
114	63748N	LINK PLUMERIA	20,851	-4,200	16,651	15,448		15,448
121a		SHIP FIRE SUPPORT		31,000	31,000			
125	64213N	HELICOPTER DEVELOPMENT	63,121	-51,500	11,621	85,368	-73,400	11,968
130	64221N	P-3 MODERNIZATION PROGRAM	41,144	41,500	82,644	36,450	90,000	126,450
134	64262N	V-22A		365,000	365,000			
134a		V-22 PRIOR YEAR		-365,000	-365,000			
136	64265N	AIR LAUNCHED SATURATION SYSTEM	7,531	-7,531		7,286	-7,286	
138	64270N	EW DEVELOPMENT	142,283	-800	141,483	149,391		149,391
138a		SURFACE SHIP ELECTRONIC WARFARE		5,000	5,000		10,000	10,000
139a		MULTI-SENSOR INTEGRATION		25,000	25,000		15,000	15,000
145	64355N	VERTICAL LAUNCH ASROC	36,933	-36,933		36,862	-36,862	
145a		ASW STANDOFF WEAPON		30,000	30,000		30,000	30,000

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
146	64358N	CLOSE-IN WEAPON SYSTEM (PHALANX)	10,597	4,000	14,597	25,896		25,896
150	64369N	5" ROLLING AIRFRAME MISSILE		5,000	5,000		7,000	7,000
153	64373N	AIRBORNE MINE COUNTERMEASURES - ENG DEV		9,000	9,000		8,000	8,000
167	64567N	SHIP CONTRACT DESIGN/DEVELOPMENT (ENG)	32,827	15,000	47,827	35,500		35,500
174a		SURFACE SHIP LASER RANGE FINDER		2,000	2,000		3,000	3,000
174b		SURFACE SHIP INFRARED SENSOR		3,000	3,000		5,000	5,000
198	24136N	F/A-18 SQUADRONS	452,077	20,000	472,077	980,581	20,000	1,000,581
215	26623M	MC GROUND COMBAT/SUPPORTING ARMS SYS	20,489	7,300	27,789	19,109	8,500	27,609
217	26625M	MARINE CORPS INTELL/ELECTRONICS WARFARE	28,305	4,000	32,305	23,432	5,000	28,432
		MARINE ENHANCEMENT PROGRAM		12,000	12,000		24,000	24,000
		CLASSIFIED PROGRAM		34,500	34,500		38,000	38,000
229	31327N	TECHNICAL RECON AND SURVEILLANCE	[ ]	[900]		[ ]	--	--
233	34111N	SPECIAL ACTIVITIES	[ ]	[20,000]		[ ]	--	--
999		INTELL & COMMUNICATIONS CLASSIFIED	678,821	20,900	699,721	669,509	--	--
234	63721N	ENVIRONMENTAL PROTECTION	26,143	500	26,643	27,549		27,549
237	64258N	TARGET SYSTEMS DEVELOPMENT	99,537	-22,000	77,537	103,058		103,058
247	65853N	MANAGEMENT AND TECHNICAL SUPPORT	12,286	-2,000	10,286	13,294		13,294
251	65863N	RDT&E SHIP AND AIRCRAFT SUPPORT	86,341	15,000	101,341	110,203		110,203
252	65864N	TEST AND EVALUATION SUPPORT	342,091	-10,000	332,091	335,571		335,571
259	78011N	INDUSTRIAL PREPAREDNESS	25,302	-20,302	5,000	46,591	-41,591	5,000
		DBOF- TECHNICAL CORRECTION: DTIC		6,100	6,100		6,100	6,100
		DBOF- TECHNICAL CORRECTION: IACS		2,700	2,700		3,300	3,300
		DBOF- DIRECT FUNDING FOR DCAA/DCMC					-140,300	-140,300
		DBOF ADJUSTMENT		-19,600	-19,600		-1,500	-1,500
		TOTAL R,D,T & E NAVY		223,475			63,961	

NAVY RESEARCH AND DEVELOPMENT INITIATIVES

Much has changed in the world over the past two years. The Warsaw Pact has evaporated, while conflict in the Third World has become a greater threat. Although the reduced threat of a ground war in Europe has fundamentally changed the challenge facing the Army and Air Force, the Soviet navy continues to build a large, capable fleet. The Navy should change its focus toward warfare in the Third World, with all of its attendant problems.

Unfortunately, intentions can change much more quickly than force levels and capabilities. The U.S. Navy, therefore, cannot ignore Soviet capabilities, regardless of how benign we think their intentions are at this moment. The challenge facing the Navy is how to shift its focus (and its research and acquisition programs) toward systems and concepts that will improve operations in Third World, shallower water situations, while taking Soviet capability into account.

The Navy has begun to recognize this requirement. During testimony this year, the Secretary of the Navy testified that antisubmarine warfare (ASW) was no longer the Navy's number one priority. He indicated that priority was shifting more to focus on crisis response. But to maintain a crisis response ability, the Navy must maintain enough ships of the right capability to present a credible threat to potential adversaries.

At the same hearing, the committee heard disturbing projections from Congressional Budget Office witnesses that, unless (1) funds available to the Navy increase in the longer-term, and (2) historic cost growth trends are brought under control, the Navy could decline to a fleet size of some 300 ships. The committee has seen no analysis that indicates that the country can be adequately protected by a fleet this small. Nevertheless, the committee cannot agree with those who would argue, "Don't worry. The country will pay whatever it costs to buy the Navy we need."

The committee believes that the Department of Defense should take steps now to ensure that appropriate technological developments are funded to make platforms cheaper, or to get a lot more capability for the same dollars. The Navy has announced that it is beginning design of a follow-on or complement to the SSN-21 *Seawolf* attack submarine, called the "Centurion." The committee notes that without congressional intervention to support the advanced submarine technology program, the Navy would have had very few technology options for making the Centurion cheaper.

A similar situation applies to surface escorts. The Navy has begun trade-off studies of cheaper destroyers. If resources were not so constrained, AEGIS weapons systems should be installed on all surface escorts. While the AEGIS system is the most capable combat system in the Navy today, the Navy needs to field improvements to meet emerging threats.

In the classic meeting engagement between grand fleets, the Navy could have counted upon mutual protection from ships and carrier aircraft. In likely Third World situations, several aspects of the threat change:

1. A large volume of missiles would probably not attack the fleet nearly simultaneously.

2. Ships will have less warning time of impending attack, because they will probably be operating closer to shore.
3. Ships will need more robust self-defense capabilities because they may be required to operate in more dispersed fashions, not least because of declining numbers of ships.

The committee recommends several initiatives in Navy and Defense Agencies R&D that will help improve capabilities in the areas of submarine warfare, antisubmarine warfare (ASW), and anti-air warfare (AAW). This report discusses improvements in each of these areas in greater detail.

The committee is encouraged that the Navy is making the first steps toward reorienting itself to the new world order, and looks forward to working together closely with the Navy to achieve the maritime capability that the country needs.

NAVY AVIATION

The Navy's acquisition plans for carrier-based aviation have been radically altered during the past eight months, with the Navy terminating the A-12, F-14 remanufacture program, and the naval variant of the Air Force Advanced Tactical Fighter.

The future of naval aviation is one of the major concerns facing the committee this year. It is also an area of profound importance to the future structure of the Navy. Cancellation of the A-12 program removed the centerpiece from naval aviation modernization planning, and has left the Navy with no immediate answer to long-term modernization of the medium attack capability.

AX Aircraft. The primary mission of the carrier Navy is power projection. The committee understands that medium attack remains the primary means of accomplishing this mission. The committee therefore believes that medium attack modernization, particularly in light of the A-12 cancellation and the age of the venerable A-6 aircraft, must continue to be the first priority for the Navy. If not, there must be alternative means of providing this capability.

Operation Desert Storm demonstrates that the Navy must develop an advanced generation medium attack aircraft that incorporates so-called "stealth" features. This does not demand an inflexible approach to stealth technology, and the committee commends the Navy for adopting a more flexible attitude toward the AX than it did on the A-12 program. The committee believes that the Navy needs to be sufficiently flexible in the early stages of the program to consider the broadest range of alternatives for the AX mission, including variants of the ATF design.

F-18 E/F. The Navy has requested funds to initiate a major modification of the F-18 aircraft into a new E/F configuration. This configuration would have greater range and payload and would further refine the aircraft's weapons capabilities.

The Navy has proposed to initiate this upgrade on an expedited basis in order to minimize further procurement of C/D model F-18s and to avoid competing with the funding requirements of the AX when it enters full-scale development and ultimately production.

The committee notes the confusion in the public debate on the relationship among the F-18E/F, the cancellation of the A-12, and the start of the AX program. The committee understands that the F-18E/F is not an interim step between the A-12 and the AX. The F-18E/F cannot accomplish the medium attack mission. The Navy intends to make the F-18E/F its long-term replacement for the current fleet of F-14 aircraft.

The committee supports the Navy's plans to develop the E/F model. The committee cautions the Navy that it must discipline the F-18E/F program to hold the line on cost and schedule.

A-12 Aircraft. The committee notes its strong disappointment in the Navy and its contractors for the way in which the A-12 program was managed and ultimately terminated. The committee strongly supported the A-12 program. Nonetheless, when the committee first learned last summer of problems with the A-12, it recommended that no further procurement funds be provided until the problems were corrected.

The committee agrees with many of the observations and conclusions of the so-called "Beach Report," but concludes that the problems with the A-12 go well beyond the flawed actions of certain individuals in the Navy management system. The committee conducted its own review of the A-12 program and concluded that the A-12 program was flawed in the following four ways:

- First, the fixed price contract that was used for the A-12 led the Navy to suspend normal oversight at senior levels. When problems emerged, senior civilian and military leaders in the Navy apparently abandoned normal oversight procedures because of the perception that the costs of any serious problems would have to be borne by the contractors and not by the Navy. The Navy leadership was lulled into inaction by the illusion of control given by a fixed price development contract.
- Second, the fixed price contract locked the Navy and the contractors into a legal confrontation that precluded the constructive exchange needed to work out serious but solvable technical problems.
- Third, the Navy kept the A-12 program under special access security procedures too long. These security procedures limited the functioning of the checks and balances that monitor and guide the normal development process.
- Fourth, the contractor's management system was deeply flawed in that it lacked a clear understanding of responsibility and accountability.

As a result of hearings and extensive conversations with senior leaders in the Navy, the committee is persuaded that the Navy now understands the problems that led the A-12 program to go awry and is determined to avoid these problems with the replacement AX program. The public's confidence in the Navy's acquisition system was badly eroded by the A-12 experience. The Navy needs to work closely with the Congress to restore public confidence in its programs and acquisition system.

SEA LAUNCHED AND RECOVERY SPACE LAUNCH PROGRAM

The sea launched and recovery (SEALAR) space launch program is developing a low-cost, partially reusable space booster. The Navy's technical approach stresses simplicity and ruggedness, and sea launch would provide significant operational advantages.

The Navy is attempting to develop SEALAR primarily with private capital through a cooperative research and development agreement, under which the vehicle would be available for commercial use. In the committee's view, the Navy will not be able to attract enough private capital without a tangible commitment by the government.

The committee recommends an addition of $15.0 million to the amended budget request of $2.5 million to support SEALAR engine development. To demonstrate a commitment, the Navy must provide additional funding through the fiscal year 1993 budget process or through a reprogramming request. In addition, the committee directs that none of the SEALAR engine development funds may be obligated until the Navy commits to fly a specific Navy satellite on SEALAR, given that SEALAR is successfully tested.

ELECTRO-OPTICAL LONG RANGE OBLIQUE PHOTOGRAPHY SYSTEM

Marine Corps aviation relied upon the RF-4B aircraft to provide photographic reconnaissance until these aircraft were slated for retirement. When Operation Desert Shield began, some RF-4B aircraft were deployed to the Persian Gulf after their retirement was postponed. Because these aircraft cannot be economically maintained in active service, a replacement capability must be found. The Marine Corps has been developing an electro-optical long range oblique photography system to replace the capability on the RF-4B aircraft and to integrate the information into the advanced tactical air reconnaissance system (ATARS) data link.

The committee recommends additional authorizations of $10.2 million in fiscal year 1992 ($6.2 million for tactical airborne reconnaissance and $4.0 million for USMC intelligence/electronic warfare systems) and $8.2 million in fiscal year 1993 ($6.2 million for tactical airborne reconnaissance and $2.0 million for USMC intelligence/electronic warfare systems) to accelerate development of this needed capability by two years.

ADVANCED AIR-TO-AIR MISSILE

The committee continues to support the requirement for a next-generation stand-off air-to-air weapon. Despite the confusion which surrounds the future of naval aviation, the committee believes the advanced air-to-air missile (AAAM) is an indispensible weapon system, irrespective of the eventual numbers and mix of tactical aircraft. The AAAM is compatible with current Navy aircraft and with all projected systems in development.

Detailed analysis indicates that air superiority in the future will depend on a long-range, high-energy missile like the AAAM. The committee believes the Air Force is likely to require an AAAM in the future as well as the Navy, and suggests that the Department of Defense assess the need for Air Force participation in the

AAAM program. The committee recommends approval of the $89.3 million requested in the amended budget request.

MINE COUNTERMEASURES INITIATIVES

The amended budget request for the Navy includes about $28.0 million for various mine countermeasures research and development efforts in fiscal year 1992. The committee regards this effort as much too modest to solve some fundamental questions about threats that could hamper the Navy and the Marine Corps in their operations in potential Third World conflicts.

The committee understands that the amended budget request was presented to the Congress before the conclusion of Operation Desert Shield/Desert Storm. Nevertheless, we should have learned several years ago, during Operation Earnest Will, that our mine countermeasures capabilities were inadequate.

The committee therefore recommends $30.0 million for fiscal years 1992 and 1993 to establish a mine countermeasures initiative fund. In the near term, these funds could be used to accelerate existing programs. In the longer term, these funds should support efforts identified in the study of mine countermeasures requested elsewhere in this report. Innovative proposals should be sought from industry, the academic community, and government laboratories to begin developing and testing creative concepts for solving the mine countermeasures dilemma.

The committee also recommends a provision that would direct the transfer of all mine countermeasures development and acquisition to the Marine Corps Research, Development, and Acquisition Command (MCRDAC). In the past, the Navy has not provided the proper management efforts or resources to this vital area. Mine countermeasures capability is vitally important to the conduct of amphibious operations. Therefore, the committee believes that directing the Marine Corps to manage these programs will put the function closer to a user of the capability who will care significantly more than the current organization about whether or not it works.

SHIP FIBER-OPTIC NETWORKS

The amended budget request contains $28.039 million for the Navy's "shipboard system component development" program, which includes funds for developing and testing fiber-optic information networks aboard ships.

The committee understands that fiber-optics technology may lead to significant savings in cost and weight relative to wire cables now used on ships for information systems. The committee also notes that longer term plans to improve the integration of sensors and weapon systems aboard ships will require more capability than wires can provide.

The committee therefore encourages the Navy to continue and accelerate its work in this area, in order to capture these advantages at an early date.

NON-ACOUSTIC ANTISUBMARINE WARFARE PROGRAMS

The amended budget request included $26.2 million and $58.9 million for fiscal year 1992 and 1993, respectively, for non-acoustic antisubmarine warfare (NAASW) RDT&E in the Navy. No funds were requested for NAASW RDT&E within the Office of the Secretary of Defense (OSD).

For several years, Congress has supported a vigorous research effort in non-acoustic antisubmarine warfare (NAASW). Congress has consistently emphasized the importance of conducting a portion of this research independently of the Navy. Furthermore, Congress has expected the Department of Defense to establish a comprehensive multi-year program plan with stable funding and program management.

It now appears that the Department of Defense and, in particular, the Director of Defense Research and Engineering, may not have been following this Congressional guidance. Moreover, there is doubt that the current program manager will be retained even through the end of the current fiscal year. These decisions appear to have been made without consulting other senior Department of Defense officials, such as the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence, who was specifically assigned cognizance over this effort by the Congress in previous years.

We believe there are compelling reasons to enhance and sustain the vigorous NAASW program initiated by the Congress and, in particular, to ensure that independent research efforts underway by the national laboratories, their associated contractors, and the United Kingdom are continued. These efforts are important for gaining a thorough technical and scientific understanding of potential threats to our submarine forces and of potential opportunities to improve our own antisubmarine warfare capabilities.

The committee has reviewed this matter in considering the amended budget request and recommends funds for NAASW research that is complementary to, but independent of, the Navy's efforts. The committee urges the Department to take no actions to prejudice the existing program in terms of program management, funding, contracting, and program plans before this bill is enacted. Furthermore, the committee urges the Department to implement a memorandum of understanding with the United Kingdom governing exchanges of information and cooperative research at the earliest opportunity.

The committee approves the funds requested in the Navy for fiscal years 1992 and 1993, and recommends an additional $40.0 million for fiscal year 1992 and $45.0 million for fiscal year 1993 for the OSD non-acoustic ASW program.

The committee also recommends a provision that would prohibit obligation of Navy funds for non-acoustic warfare research and development funds on or after January 1, 1992, unless the Secretary of Defense has certified that the Department of Defense is conducting two viable, independent NAASW programs in the Department, at least one of which is not managed within the Navy.

The committee also encourages the Defense Advanced Research Projects Agency to reconsider its position on participating in

NAASW research. Finally, the committee directs that the DDR&E NAASW program be fully coordinated with the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence.

ADVANCED SUBMARINE SYSTEM DEVELOPMENT

The advanced submarine technology program in the Defense Advanced Research Projects Agency (DARPA) is exploring innovative concepts in such areas as materials, hydrodynamics, automation, mechanical systems (including propulsion and countermeasures launchers), electrical systems, and structural acoustics. The advanced submarine systems development line includes the Navy's efforts to bring these DARPA-developed technologies to a full-scale development decision point.

The Navy has now decided that a new, less expensive attack submarine (called "Project Centurion") is required if the Navy is to be able to support its force levels over the longer term. It is vital that this research program move ahead expeditiously to develop technologies for further development and inclusion in the range of options for designing the Centurion.

The committee continues to support exploring innovative concepts aimed at ensuring that the U.S. technological lead in submarines is maintained or enhanced. The committee recommends an additional authorization of $30.0 million in fiscal year 1992 and $30.0 million in fiscal year 1993 for the Navy to further develop these submarine technologies.

The committee also recommends an additional authorization of $45.0 million and $50.0 million in fiscal years 1992 and 1993 for the DARPA submarine technology program.

MINE COUNTERMEASURES SUPPORT SHIP DESIGN

Mine clearance operations during and since Operation Desert Shield/Desert Storm have shown a need to provide external support to our small ships in the mine countermeasures force. Other allied efforts were all supported by ships that provided communications, logistics, and administrative support. U.S. forces had to divert an amphibious ship to support the mine clearing effort, but this was not without problems. The ship was not designed to support other ships, resulting in many "work-arounds." The ship was also not available to support a potential amphibious landing.

The Navy had to deploy the mine countermeasures ships to the Persian Gulf from East Coast ports using a heavy lift ship. The Navy has now announced the future homeporting of most of the mine countermeasures ships in Ingleside, Texas. The concept of keeping the ships together for improved training and administration is clearly a worthwhile goal.

Unfortunately, having the mine countermeasures ships so far away from fleet operating areas could further hamper efforts to improve fleet training. Operation Desert Shield/Desert Storm showed that peacetime operations were deficient in training battle force commanders about mine countermeasures operations. Because mine warfare assets are not regularly included in battle group operations, force commanders do not understand mine warfare capabilities, limitations, and support requirements. This homeport site could also add weeks to the required deployment times in a future contingency, unless heavy lift vessels were available to rapidly transport these ships to the scene of a crisis.

The committee therefore recommends $10.0 million for fiscal year 1992 to investigate potential designs and to conduct design trade-offs for mine countermeasures support ships. These studies should consider design options that could support mine countermeasures helicopters squadrons as well.

SEALIFT TECHNOLOGY DEVELOPMENT

The committee added both research and development funds and advance procurement funds for the purpose of pursuing fast sealift alternatives in fiscal year 1990 and in fiscal year 1991. At this committee's initiative, the Defense Department is conducting a review of all strategic lift issues, called the Mobility Requirements Study (MRS). The study's initial report concludes that, for the near term, roll-on/roll-off (RO/RO) ships having a speed of 25 knots appear to be adequate to meet requirements to carry more unit equipment items. The committee understands that the Mobility Requirements Study necessarily had to establish a cut-off date for fielding technologies that prevented consideration of longer term initiatives to correct sealift deficiencies. This, however, does not mean that pursuing these technologies is unimportant. If we do not investigate them now, then we will have negligently constrained our options for future sealift (and potentially other) applications.

The committee recommends an additional $15.0 million in each of the next two fiscal years for the purpose of completing the work of the technology development program described in the January 1989 report of the Secretary to the Congress entitled "Fast Sealift Program Technology Assessment Report." The committee intends that these funds be used to fund only those efforts which would help choose among various longer term fast sealift alternatives. Therefore, the committee designates the sealift technology development program as a congressional interest item. Its funds shall not be diverted to or used for other purposes or reprogrammed without congressional approval.

INTEGRATED ELECTRIC DRIVE

The conference report (H. Rept. 101-923) accompanying the National Defense Authorization Act for Fiscal Year 1991 prohibited obligation of more than $10.0 million for the integrated electric drive (IED) program until the Secretary of the Navy submitted a report on IED to the Committees on Armed Services of the Senate and the House of Representatives.

The committee received the report and is encouraged by the approach the Navy is taking. The committee urges the Navy to continue this high priority project. Resolving technical uncertainties would lead to getting this technology to sea.

ADVANCED MARINE BIOLOGICAL SYSTEMS

For several years, the Navy has used marine mammals to study their ability to communicate, navigate, and find objects underwater using only their natural sonar capabilities. This is important work that helps further the basic understanding of these animals and helps the Navy learn more about living and operating in the ocean environment.

The amended budget request would virtually terminate this program, an outcome that would be terribly short-sighted. Therefore, the committee recommends an additional $3.0 million and $4.0 million in fiscal years 1992 and 1993, respectively.

SHORE FIRE SUPPORT

The retirement of battleships and the resulting loss of ship to shore fire support for amphibious operations leave the Navy with questionable support capability for Marine Corps assault echelons. Last year, the committee directed the Navy to consider adapting the Army's multiple launch rocket system (MLRS) family of munitions, including the Army tactical missile system (ATACMS) for over-the-horizon operations, for shipboard use as a means of providing the necessary firepower. The committee is disappointed that the Navy has made no visible progress in providing this vital fire support capability.

The committee recommends $31.0 million for the Navy to initiate a proof-of-principle program to demonstrate the viability of a modular weapon system which will utilize the Army's existing rocket munitions and can be deployed on a wide variety of ships, both combatants and noncombatants. The committee also directs the Navy to provide an analysis of how it will meet its future fire support requirements to the congressional defense committees. The committee recommends a provision that would prohibit obligations above $25.0 million for the submarine tactical warfare system until the report is submitted and a program for a proof-of-principle demonstration has been initiated.

HELICOPTER DEVELOPMENT

The administration again proposed to terminate further procurement of the V–22 tilt rotor aircraft in its fiscal year 1992 amended budget request. The administration proposal to begin purchasing something called the Medium Lift Replacement (MLR) in fiscal year 1997 does not reflect the seriousness of the Marine Corps' lift deficiencies.

The committee recommends no authorization for MLR in either fiscal year 1992 or 1993.

P–3 MODERNIZATION

The Navy has been in a quandary about how to recover from the cancellation of the P–7 maritime patrol aircraft program last year. Without a new aircraft, force levels will fall below the numbers required to support the reduced force structure in the Navy's plan, even before the end of the planning period.

The Navy now has the opportunity to forego the costs of restarting the P–3 production line because a foreign military sales contract has opened the line. Moving forward now will provide a way of supporting force levels, avoiding a more costly development program, and taking advantage of a warm production line.

The committee recommends an additional authorization of $41.5 million and $90.0 million in fiscal years 1992 and 1993, respectively, to conduct the additional engineering effort to adapt a new propulsion plant and to make other needed improvements to the P-3 to help satisfy Navy requirements. To expedite the completion of this project, the committee also directs the Secretary of Defense to convene a Defense Acquisition Board at the appropriate time, to review the modernization plan for maritime patrol aircraft.

V-22 TILT ROTOR AIRCRAFT

The administration again proposed to terminate further procurement of the V-22 tilt rotor aircraft in its fiscal year 1992 amended budget request. There appears to be general agreement that the Marine Corps must begin a replacement program for its medium lift helicopter fleet. The committee is concerned about the flight safety, reliability, and maintenance of the existing fleet of H-46 aircraft. The committee is also disappointed that the amended budget request does not propose any reasonable alternative for replacing CH-46s. The administration proposal to begin purchasing something called the Medium Lift Replacement (MLR) in fiscal year 1997 hardly represents a serious effort to solve this deficiency.

Nevertheless, the committee believes that it would be premature to commit to production of the V-22 aircraft. Vibration problems have apparently been answered by additional weight and shock absorbers. Solutions to the weight growth involve planning to cut out weight in production aircraft and upgrading the engines and power train. Display latency problems have been reduced, but not to a level that would meet the specification.

Uncertainties remain. The recent crash of aircraft number five was unfortunate. It is too early to determine the cause of this mishap. It is also too early to determine its effect on the test program. It may be necessary to complete fabrication of aircraft number six, which was only partially completed and placed in storage to save development costs.

The committee is also concerned about whether the overall V-22 program is affordable. The Institute for Defense Analysis (IDA) study delivered to the Congress last summer evaluated the effectiveness of equal cost alternative forces, including V-22 and a range of helicopter alternatives. The V-22 force consisted of 355 aircraft, substantially fewer than the 600-700 aircraft that V-22 proponents have in mind. It may well be that replacing the CH-46 fleet with V-22 could achieve some savings by reducing the demand for deck spots on amphibious ships, and thereby cutting the demand for amphibious assault shipping. It is unclear whether these savings would be substantial enough to pay for the near-term cost increase required to bring V-22 into production.

With all of these uncertainties, the committee believes that it would be premature to launch into building production representative aircraft at this time. The committee recommends continued authorization of $365.0 million previously appropriated for continuing research and development of the V-22 tilt rotor aircraft, but recommends no new authorization for any procurement or advance procurement funding. The committee recommends a provision that would require the Director of Operational Test and Evaluation to provide reports on the progress of operational testing after specified testing milestones before further obligation of funds.

A major reason that the amphibious fleet is so expensive is the need to buy many larger, aviation-capable amphibious ships. The IDA study indicated that buying fewer V–22 aircraft than the Marine Corps had planned might result in the same net capability, while saving aircraft procurement funds. If fewer V–22 aircraft can do the job, then the Navy may not need to buy so many aviation-capable amphibious ships. The committee directs the Secretary of the Navy to report to the congressional defense committees by March 27, 1992, on whether savings from shipbuilding and conversion funds could help offset the costs of V–22 aircraft procurement.

Finally, the committee recommends a provision that would authorize the U.S. Special Operations Command to spend $15.0 million of its research and development funds for further development work on the CV–22, the special operations variant of the V–22 aircraft.

SHIP AIR DEFENSE

The need to improve ship self-defense capabilities against anti-ship cruise missiles is well-known. The technology of anti-ship missiles continues to advance. The number of aircraft carriers is shrinking. Deployment patterns in the Third World also make it likelier that surface ships will not always be operating under the protection of carrier-based naval aviation. The Navy's defense against its primary threat in a superpower confrontation emphasized the outer air battle in the open ocean against a massed raid.

The Navy is now properly shifting emphasis toward defense against "pop up" missile attacks. This threat could severely challenge the fleet. Although the Navy will probably face smaller numbers of missiles, these missiles will demand much shorter reaction times. There is another reason that the threat is more demanding. Many could have rationalized the loss of several ships in a major war with the Soviet Union. The loss of even a single U.S. Navy ship in a regional contingency, however, could have serious political consequences.

Options for improving ship air defense capabilities can be grouped into three broad categories: (a) ship self-defenses which emphasize near-term improvements by integrating and slightly improving existing capabilities; (b) ship self-defenses which involve the longer term development of new equipment and systems; and (c) battle group air defenses which integrate sensors from different ships and aircraft (such as the BGAAWC program). In all of these categories, one emphasis must be on the integration of information sources to better coordinate defenses.

The committee also believes that the Navy needs a "jump start" to get electro-optic sensors for air defense into the fleet. The Navy's historic reliance (and technological edge) on radar systems may inhibit its approach to electro-optic sensor systems. While the Navy can and should make improvements to radar systems, the committee believes that the Navy must also pursue systems that exploit other portions of the energy spectrum.

It would be possible to develop a perfect electro-optic sensor ashore and then send it to the fleet. However, providing some capability aboard a few ships now and then collecting early feedback from fleet users could be very useful in overcoming a reluctance to use electro-optic sensors aboard ship. It would also provide useful data for designing future systems, which could upgrade many ships.

The committee recommends increased funding for ship self-defense, as shown in the following table:

Ship Air Defense Initiative

(Dollars in millions)

Program	1992	1993
Multi-sensor integration	25.0	15.0
Close-in weapon system (CIWS)	4.0	
Surface ship electronic warfare	5.0	10.0
Infrared search sensor	3.0	5.0
Laser range finder	2.0	3.0
5" rolling airframe missile	5.0	7.0

The Navy should use these funds for several purposes. First, the committee recommends a multi-sensor integration demonstration. The Navy should ensure that equipment is made ready for testing within 24 months after enactment of this bill and that demonstration and validation testing is completed within 36 months. Based on results from the rapid anti-ship missile defense system (RAIDS) demonstration, this multi-sensor integration demonstration could show significant improvements in the near-term for correcting known deficiencies.

The multi-sensor integration demonstration shall provide for tests aboard two different ships, using the following equipment:

a. An existing infrared search and track sensor for air surveillance (which may be the AN/SAR-8);

b. The combat direction system for the NATO Sea Sparrow missile system, with upgraded electro-optic tracking sensors and display;

c. The MK-23 target acquisition system (TAS) radar (aboard one ship) and the AN/SPS-49 radar (aboard another ship, which may be an amphibious warfare type); and

d. The AN/SLQ-32 electronic surveillance system.

The committee believes the Navy should test and prove the value of multi-sensor integration, including radar and electro-optic devices. Because the technology of infrared (IR) detection devices is evolving rapidly, the committee does not intend to direct the Navy toward a particular IR device.

In addition to this demonstration of multi-sensor integration, the committee recommends additional authorization for several other programs:

a. an upgrade to the Phalanx CIWS system for a high-order language computer, an essential change for improving current performance and enabling increased integration with other systems in the future.

b. development of a new precision ESM system, different from the AN/SLQ-32. The new system shall provide not just one-dimensional but two-dimensional information (azimuth and elevation) about targets of interest. The Navy should use a new software architecture which conforms to best commercial practices for design of computer software.

c. a new program to develop and test a new lightweight infrared search and track device. The committee intends that the Navy pursue options made available from other defense programs or industry IR&D projects, rather than develop additional devices within the Navy. Technology for IR focal plane arrays has been and continues to be developed elsewhere. The primary need is to adapt existing technology for shipboard use.

d. a program to develop and evaluate a laser range finder suitable for shipboard use. A laser range finder could be a useful complement to a passive electro-optic sensor by providing range and range-rate information (as a radar system complements the AN/SLQ-32 by providing range and range-rate data on targets).

e. development of an IR mode upgrade for the seeker in the rolling airframe missile (RAM). The committee understands that the Navy is reviewing its anti-air warfare (AAW) programs and is considering restoration of the RAM program. The committee encourages the Navy to complete this review and proceed with a restructured RAM program to improve anti-ship missile self-defense capability.

f. engineering changes to the AN/SPS-49 radar funded in Other Procurement, Navy (discussed earlier in this report). This radar system is in widespread use throughout the fleet. The engineering changes already developed by the Navy in the medium pulse repetition frequency upgrade program would greatly improve detection of low-flying missiles. Since many ships operate the SPS-49, applying this upgrade would greatly improve overall fleet capability.

One of the advancements in radar technology in recent years has been the development of so-called "transmit-receive" (T/R) modules. T/R modules are solid-state devices which can be used instead of tube devices to produce phased-array radars. These radars could be much lighter and cheaper than current systems. If DOD is successful in reducing the cost of T/R modules sufficiently, they would have wide military and civilian applications.

The committee believes that DOD should pursue manufacturing techniques that could result in low cost modules, especially ones in the X-band frequency. This effort should have higher priority than designing a new radar system using current technology. DOD should set an aggressive cost goal of roughly $10 per module. Achieving such a goal could have significant implications for a broad range of capabilities. It could also help avoid difficult trade-offs later between force levels and achieving desired capability.

The committee observes that the NATO AAW System (NAAWS) has been terminated. Nevertheless, the Navy still has a need to install robust self-defense systems on ships that cannot afford the full AEGIS combat system. The Navy's challenge is to devise a plan for building ship defense capabilities by using modular sensors, processors, and weapons linked by a data bus architecture. The RAIDS program is trying to solve part of this problem. Development and testing thus far have been encouraging. Some plans within the Navy for a quick reaction combat capability (QRCC) also address this requirement. The committee expects the Navy to take appropriate action to continue the essential work once included in the NAAWS project.

As an essential contribution to the Congress in its review of the Navy's AAW programs, the committee directs the Secretary of the Navy to submit a report, not later than February 28, 1992, to the congressional defense committees which:

1. explains the relationships between the various R&D and procurement programs for improving ship air defense capabilities;
2. identifies the major programs for integrating ship defense systems and the technological hurdles to achieving desired capability in each program area; and
3. defines a multi-phased approach for improving the air defense capability of U.S. naval forces (including amphibious warfare and support ships).

ANTISUBMARINE STAND-OFF WEAPONS

Last year, the administration proposed to cancel the Sea Lance program. This system would have provided our submarines with the ability to attack enemy submarines at ranges beyond which they could be engaged with MK-48 torpedoes. Sea Lance would have used a conventional warhead on a MK-50 torpedo to replace the capability lost when the SUBROC nuclear depth bomb weapons were retired. Sea Lance would have also been used in surface ships to launch a weapon beyond the range of other antisubmarine rockets and to respond to threats more quickly than would be possible using helicopters.

The conference report (H. Rept. 101-923) accompanying the National Defense Authorization Act for Fiscal Year 1991 directed the Navy to study antisubmarine warfare stand-off weapons requirements, alternatives, and costs, to include the Sea Lance weapon.

The committee regrets that the Navy has not completed this study. Nevertheless, the amended budget request provides for the Vertical Launch ASROC program to help satisfy the stand-off weapon requirement for surface ships.

The committee recommends $30.0 million in fiscal years 1992 and 1993 to fund development and testing of the system that is chosen by the Navy at the conclusion of the study. The committee also recommends a provision that would permit Congressional review of the report before fiscal year 1992 funds may be obligated for any stand-off weapon alternative.

AIRBORNE MINE COUNTERMEASURES

Operation Desert Shield/Desert Storm showed that the Navy's mine countermeasures capability was woefully inadequate. Using a prototype of the Magic Lantern airborne mine countermeasures system, Navy forces have shown that Magic Lantern has great potential for augmenting conventional mine hunting capability. The committee received testimony from the Commander of the Navy forces in the Persian Gulf supporting the system.

The committee believes that the limitations that mine warfare could place on future Navy and Marine Corps operations are very serious and can be ignored no longer. The committee believes that work should continue on the Marine Corps' airborne mine detection and surveillance (AMDAS) system. The committee, however, believes that the Navy cannot afford to wait to develop a single system that can find mines on the beach, in the surf zone, and in shallow water because it would put our vital interests at risk too long.

The committee recommends $9.0 million for fiscal year 1992 and $8.0 million for fiscal year 1993 for the completion and operational testing of two previously funded Magic Lantern systems.

SHIP CONTRACT DESIGN

The committee received a letter earlier this year from the Secretary of the Navy describing a program to improve sealift capability with the addition of roll-on/roll-off ships to the government inventory. The interim report of the Mobility Requirements Study (MRS) supports this program. The committee understands that there are not sufficient funds within those totals allocated to the ship contract design program to complete the contract design effort that would allow the Navy to proceed expeditiously with this program.

Therefore, the committee recommends the authorization of an additional $10.0 million in fiscal year 1992 to complete contract design on the near-term sealift program as specified in the Secretary of the Navy's letter of February 12, 1991, to the committee.

DDG-51 HELICOPTER HANGAR

The *Arleigh Burke* (DDG-51) class guided missile destroyers do not have helicopter hangars, although they would have been installed on a future version of this ship class, known as Flight III. The Flight III variant has now been canceled. Moreover, the Navy is removing from active service the FF-1052 class frigates, which have hangars for the LAMPS MK-I helicopters (SH-2s).

The committee understands that it is possible to add a telescoping, fiberglass helicopter hangar to the current DDG-51 design at relatively little cost. Unfortunately, this would not accommodate a RAST system necessary for support of the SH-60B helicopter, but it would be large enough for the SH-2, which does not require a RAST for handling aboard ship. Now that the Flight III variant has been canceled, the committee is interested in the less expensive, albeit somewhat less capable, alternative. Even a limited capability to deploy with a helicopter would be better than no capability at all.

Accordingly, the committee recommends $5.0 million (included in the ship contract design program element) for design of a telescoping hangar for the DDG-51 class ships. The committee directs the Navy to provide an analysis of the options for installing this hangar (and associated costs) on new ships with the submission of the fiscal year 1993 amended budget request.

ADVANCED BOMB FAMILY

One of the lessons learned from Operation Desert Storm is the poor status of Navy air-delivered ordnance. Navy and Marine Corps contributions to the strategic air campaign were limited by the inability of aircraft to deliver smart munitions and the lack of smart munitions to deliver in any event. For example, the Marine Corps prefers laser weapons in order to keep humans "in the loop," yet the Marine Corps has not put laser designators on combat aircraft, and most Marine Corps air operations were beyond the range of ground-based designators.

The Navy is currently developing an advanced family of bombs. Prior to Operation Desert Storm, this program was dominated by shipboard safety and logistics concerns. Improved guidance was included as a program goal, but was not a high priority element of the program. The committee understands the Navy is rethinking its approach to the advanced bomb family program, and has given much higher priority to precision guidance. Even with this rethinking, the Navy's current plan would not field an advanced bomb to the fleet until 1998.

The committee is convinced that improved precision guidance must be the highest priority concern. Since most analysis shows that precision-guided bombs are 100 times more effective than unguided ordnance, the Navy has an opportunity to expand by 100 times the effective ordnance storage on Navy ships. But it is implausible to think that the fleet should wait 7–8 years to achieve this capability.

The committee understands that an advanced inertial-laser kit for Mark 80 series bombs could be available in three years. The committee supports the Navy's efforts to field an advanced bomb family, but believes that the Navy should restructure its program to emphasize a near-term interim upgrade that would produce an inertial-laser kit to upgrade existing Mark 80 series bombs as a stepping stone to the new design bomb family.

FIXED DISTRIBUTED SYSTEM

With the significant decline in the likelihood of war with the Soviet Union, fixed surveillance systems lose some of their marginal value. The Navy's fixed distributed system (FDS) is nearing the end of its development phase.

However, the committee believes that the Navy should re-orient its focus more toward systems that could also be useful in responding quickly to rapidly developing crises in Third World situations. Procurement of a large number of fixed systems should probably be limited. The Navy should undertake development of deployable antisubmarine warfare surveillance systems which can be inserted in a matter of hours or days, not weeks or months.

The committee has been made aware of a number of concepts for deployable surveillance systems. Deploying such surveillance systems by means other than the normal cable ship is an attractive feature of some of these concepts. The committee specifically expresses no preference for any particular system concept, but believes that the Navy should conduct systems technology demonstration programs to focus on the enabling technologies that could make such concepts achievable, such as high density processor technology, deployable high gain array designs, and advances in artificial intelligence.

APG-73 RADAR UPGRADE

Recent experience in Operation Desert Shield/Desert Storm showed that tactical reconnaissance was a significant handicap to battlefield commanders. The Marine Corps has been developing a new radar for the F/A-18 aircraft to give them an "all-weather" capability. This radar development would greatly enhance the ability of Marine aviation assets to provide real-time tactical intelligence by providing a "strip map" mode to the radar and integrating this information into the advanced tactical airborne reconnaissance system (ATARS) data link.

The committee recommends an additional $23.0 million in fiscal year 1992 ($20.0 million for F/A-18 squadrons; $3.0 million for tactical airborne reconnaissance) and $25.0 million in fiscal year 1993 ($20.0 million for F/A-18 squadrons; $2.0 million for tactical airborne reconnaissance; $3.0 million for USMC intelligence/electronic warfare systems).

INTEGRATED NIGHT SIGHTS

Briefings before the committee on Operation Desert Shield/Desert Storm revealed that the Marine Corps light armored vehicles (LAVs) lacked night sights that were integrated with sights of LAV armaments. Stop-gap measures provided some capability, but this problem should not be allowed to go unremedied.

The committee therefore recommends additional authorization of $2.3 million and $3.5 million for fiscal years 1992 and 1993, respectively, for the ground combat/supporting arms systems program to accelerate the LAV product improvement program, including the development of an integrated night sight.

TARGET SYSTEMS DEVELOPMENT

The Navy should test its combat systems against realistic target systems that replicate potential threats to the fleet. The supersonic, low altitude target (SLAT) is such a system. The Navy has been developing SLAT for a several years, with only limited success. There have been further recent failures in testing SLAT that greatly concern the committee. The committee encourages the Navy to restructure the program to reflect the hiatus in the testing resulting from the recent test failures.

The committee recommends authorization of $77.5 million for Target Systems Development in fiscal year 1992, a reduction of $22.0 million from the amended budget request, to reflect a rephasing of the SLAT testing effort.

RDT&E SHIP AND AIRCRAFT SUPPORT

Two Navy oceanographic research vessels, the R/V *Melville* (AGOR-14) and the R/V *Knorr* (AGOR-15) are currently undergoing a mid-life refit to upgrade them with improved ocean data collection and analysis capabilities. This upgrade included lengthening the ships by 30 feet, and replacing their engines, propulsion plants, control systems and scientific on-board equipment. These ships are operated by the Woods Hole Oceanographic Institution (WHOI) and Scripps Institute of Oceanography (SIO) for the Navy. The committee understands that the ability of the Navy to collect accurate oceanographic and atmospheric environmental data is extremely important in conducting many of its warfare missions, especially antisubmarine warfare.

For a variety of reasons the Navy decided to perform these ship conversions in a different manner than normal. Rather than contract directly with a shipyard, the Navy elected to contract with WHOI, which, in turn, entered into a fixed price contract with a shipyard to conduct the modernization. The committee is aware that the total funding made available to WHOI, the contract agent selected by the Navy to oversee the upgrade to both ships, has turned out to be insufficient. Major problems not understood when the original contract was signed, involving asbestos removal, ship control system redesign, and environmental compliance have subsequently emerged.

The committee understands the valid reasons for treating the conversion of these ships differently than the conversion of a warship. However, the committee does not believe that these differences justify the extraordinary contractual arrangement used by the Navy which excluded the normal involvement of the Naval Sea Systems Command. The committee admonishes the Secretary of the Navy to carefully review any future shipbuilding or conversion contracts that do not employ normal, accepted contracting and oversight practice to ensure that difficulties such as are now being encountered with the *Melville* and *Knorr* refits are not encountered again.

The committee nevertheless recognizes the importance of the research that these vessels support and therefore recommends authorization of an additional $15.0 million in fiscal year 1992 to cover the cost growth in this conversion project. These funds may also be used for additional upgrades of the ship's research capabilities that were originally rejected in adjusting the scope of the overall conversion project to meet available funding.

EDUCATION PROGRAM FOR MANAGING TECHNICAL RISK

The final report of the Packard Commission noted that each year the United States spends billions of dollars, more or less efficiently, based on the competence and experience of the defense acquisition workforce. Yet, compared to its commercial industry counterparts, this defense workforce is undertrained, underpaid and inexperienced.

The committee is aware that the Department of the Navy is in the process of developing an education program intended to provide the defense acquisition workforce with a better awareness and understanding of military weapon system design, test, and production. In its report (S. Rept. 101-384) accompanying the National Defense Authorization Act for Fiscal Year 1991, the committee directed that $3.0 million be made available to support this program. The committee believes that, based on demonstrated progress in the nature of educational materials published or in preparation and courses developed and being presented, this program warrants continued support.

Accordingly, the committee directs that of the amounts provided for the Navy's Industrial Preparedness program, $5.0 million be made available in fiscal year 1992 for this activity and $5.0 million be made available in fiscal year 1993.

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
		AIR FORCE R&D CHANGES						
2	61102F	DEFENSE RESEARCH SCIENCES	203,206	10,300	213,506	214,578		214,578
9	62205F	PERSONNEL, TRAINING AND SIMULATION	30,953	1,500	32,453	33,779		33,779
14a	62XXXF	PRECOMPETITIVE TECHNOLOGY		40,000	40,000		40,000	40,000
20	63205F	AEROSPACE VEHICLE TECHNOLOGY	22,858	-10,300	12,558	24,279	-6,300	17,979
25	63245F	ADVANCED FIGHTER TECHNOLOGY INTEGRATION	24,073	-13,900	10,173	25,535		25,535
28	63269F	NATIONAL AERO SPACE PLANE TECH PROG	231,833	-231,833		183,289	-183,289	
35	63428F	SPACE SURVEILLANCE TECHNOLOGY	25,100	-20,100	5,000	35,901	—	—
44	63105F	OLYMPIC	[ ]	[10,000]		[ ]		
52	64312F	ICBM MODERNIZATION	815,909	-15,000	800,909	824,156		824,156
70a		FOLLOW-ON EARLY WARNING SYSTEMS	82,000	-20,000	62,000			
996		STRATEGIC CLASSIFIED	360,715	10,000	370,715	1,388,272	—	—
101	64245F	SHORT RANGE ATTACK MISSILE -TACT (SRAM-T)	34,346		34,346	106,520	—	—
106a		B-1B RWR		-9,800	-9,800			
115	64704F	COMMON SUPPORT EQUIPMENT DEVELOPMENT	12,675	2,500	15,175	6,388		6,388
123	64756F	SIDE LOOKING AIRBORNE RADAR	4,166	-4,166		4,342	-4,342	
124	64770F	JOINT SURV/TARGET ATTACK RADAR (JSTARS)	311,859	14,000	325,859	322,298	14,000	336,298
133a		F-117 RECCE MODS		15,000	15,000		25,000	25,000
136	27163F	ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE	30,582	-20,000	10,582	31,154		31,154
139	27215F	TR-1 SQUADRON	54,220	-54,200	20	21,879	-21,900	-21
140	27217F	FOLLOW-ON TACTICAL RECONNAISSANCE SYS	56,553	39,600	96,153	57,996		57,996
997		TACTICAL CLASSIFIED	977,309	-27,900	949,409	809,597		809,597

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
170	31305F	INTELLIGENCE PRODUCTION ACTIVITIES	[ ]	[400]		[ ]	--	--
175	31317F	SENIOR YEAR OPERATIONS	[ ]	[190,420]		[ ]	--	--
176	31324F	FOREST GREEN	[ ]	[-5,000]		[ ]	--	--
182	33411F	SPECIAL ACTIVITIES	[ ]	[45,200]		[ ]	--	--
182a		CLASSIFIED PROGRAM		-100,000	-100,000			
998		INTELL & COMMUNICATIONS CLASSIFIED	2,333,744	231,020	2,564,764	2,456,472	--	--
194	64408F	ADVANCED LAUNCH SYSTEM	147,744	-97,744	50,000	251,135	--	--
199	64755F	IMPROVED CAPABILITY FOR DEV TEST & EVAL	56,259	-5,000	51,259	64,189		64,189
200	65101F	PROJECT AIR FORCE	22,488	3,112	25,600	23,921	2,979	26,900
205	65807F	TEST AND EVALUATION SUPPORT	402,330	-40,000	362,330	433,091		433,091
206	65808F	DEVELOPMENT PLANNING	16,081	-5,000	11,081	22,224		22,224
209	65894F	REAL PROPERTY MAINTENANCE – RDT&E	105,123	-10,000	95,123	66,467		66,467
210	65896F	BASE OPERATIONS – RDT&E	76,306	-5,000	71,306	82,104		82,104
220	78011F	INDUSTRIAL PREPAREDNESS	50,535	-50,535		79,163	-79,163	
		DBOF– TECHNICAL CORRECTION: DTIC		6,300	6,300		6,300	6,300
		DBOF– TECHNICAL CORRECTION: IACS		2,800	2,800		3,400	3,400
		DBOF– DIRECT FUNDING FOR DCAA/DCMC					-224,600	-224,600
		THERMIONICS		5,000	5,000		6,000	6,000
		TOTAL R,D,T & E AIR FORCE		-359,346			-421,915	

SEISMIC MONITORING

The committee recognizes the importance of the Air Force's basic research program in seismology. This Air Force project supports research instruments, data collection, and associated seismic data interpretation efforts that are crucial not only for assessing potential earthquake hazards but also for monitoring treaties limiting underground nuclear explosions. As such, it is a vital Air Force research project that requires a stable long-term funding base.

The committee therefore authorizes an increase to the Air Force defense research sciences program (program element 0601102F) of $10.3 million to be used only for project 2309, terrestrial sciences. This increase, which is in addition to the Air Force request of $1.8 million, elevates funding for this project to $12.1 million. An integral component of this project is the US/USSR Joint Seismic Program (formerly known as the US–Eurasian Seismic Studies Program) under the aegis of the Incorporated Research Institutions for Seismology (IRIS). Administered by the IRIS consortium, composed of 70 universities located throughout the United States, the joint seismic program is making important technical contributions to our capability to monitor nuclear testing treaties and characterize seismic events worldwide.

Of the $10.3 million increase, $6.0 million should be used only for funding the IRIS consortium. The remaining $4.3 million is to be used only for seismic research, primarily performed by universities, that focuses on resolving technical issues relating to the improvement of our seismic treaty monitoring capability. The Air Force request of $1.8 million for project 2309 should continue to be used only to fund generic seismic and gravity research that address other requirements of the Air Force. Defense Department Form 1414 for fiscal year 1992 should show project 2309 as a special Congressional interest item.

The committee believes that the Air Force should support its global seismic monitoring mission by submitting adequate funding requests for project 2309 in the fiscal year 1993 and future budget requests. In the future, as the US/USSR Joint Seismic Program attains its goal of adequate seismic coverage in the USSR, the committee expects the Air Force to manage this project and associated funding to ensure that adequate seismic coverage and associated data interpretation is maintained on a global basis, ensuring continued improvement in our ability to identify nuclear explosions and other seismic events worldwide.

DEFENSE INITIATIVE ON TELE-EDUCATION AND TRAINING

The committee believes that tele-education techniques may be especially beneficial in improving education and training. Tele-education uses bi-directional electronic links, usually involving a video link from teacher to student and either a video or audio link between student and teacher. At least one such educational system has been established at the national level, and many others have been established within states or regions. In addition, the Army National Guard is investigating an interactive video program to be used in its training program.

The committee strongly supports the tele-education and teletraining concepts but believes that much additional work remains to be done before their full potential is realized. One specific problem in tele-education is achieving a higher level of student involvement. While considerable progress has been made towards providing students with powerful computers, high resolution displays and high bandwidth information links, the instructional programs that can take advantage of these hardware and computer networking capabilities to support the multimedia learning environment have not been adequately developed.

The committee understands that the Air Force is interested in developing techniques to improve learning. Accordingly, the committee recommends an additional authorization of $1.5 million for the Air Force's personnel, training, and simulation technology program (program element 62205F) to research techniques for improving student participation in tele-education. The committee intends the Air Force to work closely with academic institutions already involved in tele-education and multi-media learning, such as the National Technological University, Purdue University, Colorado State University, the Georgia Institute of Technology, the University of Missouri at Rolla, and the University of New Mexico. The Air Force should also coordinate its activities with those of the Army National Guard's experimental program in interactive video. The Air Force is also expected to involve its own education institutions, such as the Air Force Institute of Technology or the Air Force Academy, in the conduct of this program. Recognizing the broad applicability of tele-education and training, the Air Force is expected to make the results of its work widely available and the ability to commercially replicate any effective designs a high priority.

NATIONAL AEROSPACE PLANE

The amended budget request included $231.8 million and $183.3 million for fiscal years 1992 and 1993, respectively, for the National Aerospace Plane (NASP). The committee denies the request for NASP for fiscal years 1992 and 1993.

In the report on NASP required by the National Defense Authorization Act for Fiscal Year 1991, DOD stated that developing, building, and testing two experimental NASP vehicles will cost $10.0 billion. Only about $2.0 billion of this amount has been appropriated or budgeted in the current Future Years Defense Plan. Thus, DOD and NASA face an unfunded liability on this program alone of $8.0 billion.

Even if this amount of money could be found in future declining budgets, DOD has no idea of the payoff in terms of potential missions or the acquisition and operating costs for an operational system.

The Air Force faces large unfunded liabilities in several other space programs as well. In the committee's view, NASP is not a high enough priority to displace funding for other important DOD programs.

SPACE-BASED WIDE AREA SURVEILLANCE (SBWAS)

The amended budget request included $25.1 million and $24.9 million for space-based wide area surveillance technology demonstration programs by the Air Force and Navy, respectively in fiscal year 1992. The committee recommends $5.0 million for each effort for technology development. The amended budget request also included $35.9 million and $46.2 million for these programs in fiscal year 1993, as well as $29.4 million for full-scale development of a space-based radar. The committee does not recommend an authorization amount for technology development in fiscal year 1993, but specifically denies the request for full-scale development (FSD) funds. The committee understands that the FSD request was made in error in any event.

The committee approves the DOD decision not to rapidly acquire a space-based wide-area surveillance capability. The committee believes that an acquisition program would be premature because of technology risk and lack of resources. An acquisition program also would be difficult to justify at this time since DOD has effectively mothballed such wide-area surveillance systems as the Air Force and Navy over-the-horizon backscatter radar systems.

Specifically, the committee directs the Air Force to examine the potential of bistatic radar technology and to work closely with the Air Defense Initiative and other relevant program offices on concepts to detect and track all target classes at least cost. The committee directs the Navy to focus on detector array and processing technologies. This guidance is consistent with the recommendations of the recent Defense Science Board Task Force report on tactical warning/attack assessment.

HIGH POWER MICROWAVE TECHNOLOGY

The committee notes the operational potential of Ultra Wide Band High Power Microwave technology and supports Air Force development efforts in the Advanced Weapons Technology program element (PE 63605). Because of the promise of solid state microwave generator technology, the committee believes that Army and Navy should consider this technology for C3I countermeasures, aircraft self-protection, suppression of enemy air defenses, and defense of surface combat ships from anti-ship missiles.

RAIL GARRISON MX

In the National Defense Authorization Act for Fiscal Year 1991, Congress prohibited the obligation or expenditure of funds for procurement of the Rail Garrison MX (RGMX) program and directed that R&D funds for the RGMX system "be used only to conduct critical activities needed to complete research, development, test, and evaluation and maintain the key technologies for that system on a stand-by or 'mothball' status." The committee continues to support an orderly shutdown of RGMX development activities. However, the committee believes that absent a fundamental revival of Soviet Cold War policies, it is very unlikely that the MX will ever be redeployed from existing silos to a rail-mobile basing mode. Accordingly, the committee believes it is in the U.S. interest not to have the MX qualify as, or be arbitrarily designated as, a mobile ICBM for purposes of START.

In February 1990, President Bush proposed to President Gorbachev that the United States and Soviet Union negotiate a ban in START on mobile MIRVed ICBMs as a first step toward a more comprehensive restriction on all land-based MIRVed ICBMs. At the June 1990 summit, the United States dropped this proposal in return for Soviet agreement to cap its mobile ICBM warhead total at 1,100. At the summit, the two sides also agreed that in follow-on negotiations to START (START II), they would "seek measures that reduce the concentration of warheads on strategic delivery vehicles as a whole, including measures related to the question of heavy missiles and MIRVed ICBMs." Should it prove too difficult in START II to achieve a ban on all MIRVed ICBMs, the United States may well want again to pursue a prohibition on mobile MIRVed ICBMs as an interim step toward this objective. In this context, U.S. negotiating flexibility will be severely restricted if such a ban would require the dismantlement of the MX even though the system was not a mobile system.

The committee understands that under the current draft text of the START Treaty, an ICBM will count as a mobile ICBM if it is ever flight tested from a mobile launcher. The administration proposes to spend approximately $15 million in fiscal year 1992 funds to flight test an MX missile from an operational model RGMX train next year. As General McPeak testified at a March 19, 1991 hearing, "With this test launch, we'll truly characterize Peacekeeper as a mobile system."

At this same hearing, General McPeak conceded that one flight test would not be statistically significant. In addition, at a June 5, 1991 hearing, the Air Force testified that were the United States ever to decide to restart the RGMX full-scale development program, it would want to conduct up to four additional flight tests from the prototype RGMX train prior to deployment. Moreover, the Air Force took the position last year that as a result of prior "cold launch" tests of a dummy MX missile from an engineering model train, the technical risks associated with conducting operational flight tests from the operational model train were judged to be "very low."

The committee believes that the benefits of this solitary flight test are outweighed by the adverse consequences it would entail for our future arms control options. The committee therefore adopts a provision (section 226(c)(1)) that would prohibit the obligation or expenditure of funds for this purpose and recommends that the Air Force transfer the five MX missiles it has already procured for RGMX mobile basing verification test launches to the follow-on operational test and evaluation (FOT&E) program to extend the service life of Peacekeeper in silos.

The committee also understands that under the agreed definition of "mobile ICBM" in the current draft text of START, an ICBM system would qualify as a mobile ICBM system if a missile of that type is ever "contained" in a mobile launcher. However, the United States and the Soviet Union have apparently not reached an understanding on what constitutes a "missile" for purposes of this definition, and there are even disagreements within U.S. agencies on this question. The committee is concerned that the Air Force's plan to phase out the RGMX development program by procuring, integrating, testing, and certifying an operational model RGMX train in fiscal year 1992 could result in the MX being "captured" as a mobile ICBM system even if the one MX flight test from the train is not conducted. This outcome could apparently be avoided if the missile that is contained in the train during these activities is a dummy missile or an instrumented ground test missile with features that distinguish it from an operational missile.

The restriction on RGMX adopted by the committee (section 226(c)(2)) would prohibit the obligation or expenditure of funds for procuring, assembling, integrating, testing, or certifying the operational model RGMX train unless the Secretary of Defense certifies that these activities will be conducted in a manner that will not meet the definition of "mobile ICBM" for purposes of START. This restriction does not apply to $20.0 million in fiscal year 1992 needed to complete the critical design reviews (CDR) for the operational model RGMX train.

Finally, the committee is disappointed to learn that after the administration decided in late 1990 to cancel the redeployment of the MX from its silos to trains, it never rescinded its earlier designation in START of the MX as a mobile ICBM system. At a March 19, 1991 hearing, General McPeak testified:

> The United States agreed in the START talks that the Rail Garrison Peacekeeper system would be considered a mobile ICBM for reciprocity with the Soviet Union. Since the United States does not have a true mobile ICBM and the Soviets do, there had to be some accommodation in the negotiations to win some of the verification provisions the United States required for Soviet mobile ICBMs.

General McPeak testified that one of the verification provisions the United States "won" from the Soviet Union by designating MX as mobile was "continuous monitoring of solid rocket motor production facilities."

The committee does not believe the administration has made a compelling case for designating the MX as a mobile system:

—First, contrary to General McPeak's testimony, the Soviet Union did not agree to accept perimeter portal continuous monitoring (PPCM) at mobile ICBM solid rocket motor production facilities in exchange for the United States designating the MX as mobile. Instead, the administration agreed to Soviet demands that PPCM be limited to first stage final assembly facilities (FAF)—a concession which was strongly opposed within the U.S. intelligence community.

—Second, there are areas in the treaty where the two sides did not insist on strict reciprocity. For example, START entitles the Soviet Union to 154 heavy ICBMs; the United States is permitted none.

—Third, if the INF and START treaties are taken together, there will be strict PPCM reciprocity even if there is no PPCM at the MX first stage FAF. The United States can establish a PPCM at the SS-24 mobile ICBM first stage FAF and maintain its PPCM at the SS-25 first stage FAF originally established under the INF

Treaty. The Soviet Union will have one PPCM at the Pershing INF FAF and will be permitted to establish a PPCM at the SICBM first stage FAF as soon as the United States flight tests the SICBM from a mobile launcher or a SICBM missile is "contained" in a mobile launcher. In fact, the committee notes that since the MX first stage and the SICBM first stage are manufactured by the same contractor at the same location, the SICBM development program will result in the Soviet Union establishing PPCM at the same plant as would be the case were the MX to retain its designation as a mobile system.

—Finally, the committee believes that for the United States to continue to agree to treat the MX as a mobile system even though it is not a mobile system would establish an unfortunate precedent for similar accommodations in future arms control negotiations.

The committee recommends a provision (section 226(d)) that would express the sense of the Congress that the administration should rescind its designation of the MX ICBM as a mobile ICBM in START. The committee believes that the INF and START treaties will afford full reciprocity of U.S./Soviet PPCM rights. However, should the administration determine that the United States cannot complete the START negotiations unless it agrees to allow Soviet PPCM at the MX first stage FAF, the committee believes the Soviet Union can be granted this right as a gesture in its own right, without designating the MX as a mobile ICBM system.

SMALL ICBM

To preserve U.S. options for future deployment of a mobile ICBM, the committee fully funds the amended budget request of $548.8 million in fiscal year 1992 for further development of the Small ICBM. The committee notes that, according to testimony received from the Air Force, long-lead production funds will be needed starting next year if the fiscal year 1997/1998 initial operational capability for this system is to be protected.

TACTICAL WARNING AND ATTACK ASSESSMENT (TW/AA)

The amended budget request included $82.0 million in fiscal year 1992 to begin demonstration/validation of a new Follow-On Early Warning System (FEWS), which would replace the current Defense Support Program (DSP) ballistic missile tactical warning and attack assessment (TW/AA) system. No request was made for fiscal year 1993 funding. The request also included substantial funds for ballistic missile detection and tracking programs for strategic defense and for theater missile defense (TMD) programs.

The committee believes that all these programs are related and should be evaluated in an integrated manner. Unfortunately, each program and issue involving theater missile defense and TW/AA has been analyzed and justified in isolation. The likely result will be both duplication and unfulfilled requirements.

The TW/AA requirements process has failed to address theater needs for warning, assessment, and defense in a clear and unambiguous manner. As yet, no non-strategic requirements are levied on the existing DSP program. While effective operations were accomplished in Operation Desert Storm, it took months to lash together a solution. A more rigorous, robust, and timely capability in terms of processing and dissemination is necessary, possible, and affordable in the near term.

The requirements for a DSP follow-on, similarly, do not explicitly address potential non-strategic requirements. Yet the program is being justified, in part, by its potential contribution to theater warning and defense. General Colin Powell, the Chairman of the Joint Chiefs of Staff, recently notified the committee in a letter that the Joint Chiefs of Staff are reviewing requirements for such non-strategic missions as part of their larger review of the Strategic Defense Initiative.

The Air Force argues that the proposed FEWS will significantly enhance the potential effectiveness of a theater missile defense system. Yet, current theater missile defense architectures do not appear to be based on this contribution. If, for example, a TW/AA system can provide accurate missile location prediction, ground-based radars for theater missile defense could acquire targets at twice the range, or they could see smaller cross section targets, or they could be smaller and more mobile. It might also be feasible to launch an interceptor before the ground-based radar has even detected a target. These trade-offs, however, have not been performed or presented to Congress. Conversely, the cost-benefit of this capability has not been compared to that of better ground-based radars and interceptors.

The Strategic Defense Initiative Organization (SDIO) and its contractors are pursuing promising distributed sensor technologies and architectures which could have a direct, fundamental impact on FEWS capabilities and requirements and on theater missile defense designs. Yet, comprehensive, integrated trade-off studies have not been conducted by the Department or made available to Congress.

SDIO and its contractors claim that a distributed sensor system based on or derived from the SDIO Brilliant Pebbles program could accomplish part or all of the TW/AA mission. Ambassador Cooper, the Director of SDIO, testified, for example, that "while Brilliant Pebbles as currently designed does not meet all the U.S. Space Command requirements for TW/AA, a distributed, low-altitude constellation of satellites could perform the TW/AA mission." If this assertion is true, DOD might not require a separate TW/AA system, or a follow-on system to DSP, or a highly capable follow-on system. Yet, analyses have not been conducted on issues such as Brilliant Pebbles sensor field of view, cooling, and networked data processing, to determine whether or to what extent a Brilliant Pebbles-derived system could satisfy TW/AA requirements.

Similarly, the SDIO Brilliant Eyes program could meet all or part of the TW/AA and theater missile defense requirements, but full analyses have not been conducted on such issues as the required number of satellites, sensor field of view, sensor mix, the risk in laser radar development, continuous or extensive sensor cooling, and sensor networking.

If, for example, a Brilliant Eyes network could provide accurate launch locations, azimuth, and impact point predictions, and could detect even dim, short-burn targets when focused on a particular region, are duplicative capabilities needed with FEWS? Would a somewhat larger number of slightly modified DSPs complemented by Brilliant Eyes satisfy all TW/AA and TMD requirements? Conversely, if DOD pursues the FEWS program, would Brilliant Eyes have to be as sophisticated as currently envisioned by SDIO?

SDIO and its contractors clearly believe that these distributed sensor concepts could contribute significantly to TW/AA and TMD missions. However, industry appears to be unwilling to commit scarce bid and proposal funds to offer such an approach in the FEWS competition. Two explanations are possible: one, industry does not, in fact, believe in the concept enough to risk bidding, and second, industry believes that the Air Force is not interested in such a concept. The Air Force maintains that its "point design" of five large, complex satellites at geosynchronous altitude was defined solely for costing purposes, and that the FEWS RFP is open to any conceptual approach.

The committee is disturbed by these apparent contradictions and directs the Department of Defense to perform a set of comprehensive, integrated analyses to resolve them. The Department must not permit each individual program to seek self-sufficiency or autonomy. TW/AA programs, SDIO distributed sensor systems, and active defense programs must be viewed and managed in their inter-relationship. The Department must evaluate how Brilliant Pebbles and Eyes sensor systems and architectures would have to be changed to perform all or part of the TW/AA and TMD missions. These analyses, in turn, must be factored into the analysis of requirements and capabilities for DSP or a DSP follow-on. These trade-offs must also be related to the design of theater missile defense architectures.

The committee is convinced that a distributed architecture for all or part of the TW/AA mission must be carefully evaluated in its own right. A distributed system would offer the potential advantages of using smaller and cheaper launch vehicles, possible on-demand launches for replenishment or augmentation, greater survivability, and reduced impact from individual launch failures.

As noted elsewhere in this report, the committee is also concerned about the extent to which DOD space programs are unfunded in the Future Years Defense Plan. Between the National Aerospace Plane, the National Launch System, and FEWS alone, the Air Force faces unfunded liabilities of perhaps $15.0 billion.

The committee directs the following actions. The Secretary of Defense shall sponsor and coordinate the comprehensive, integrated system trade-off analyses outlined in this report, and the results shall be considered formally in a review by the Defense Acquisition Board of the FEWS/DSP and theater missile defense programs.

In order to determine, among other things, the cost savings or benefits of reducing DSP procurement to mitigate transition costs to a follow-on system, the review should address requirements for additional DSP satellites in view of the number of DSP satellites already on order and the schedule for a DSP follow-on. If such costs cannot be mitigated by reducing DSP procurement, a detailed cost analysis of a transition from DSP to FEWS is required, including the cost difference between DSP and FEWS. This analysis should take into consideration possible distributed sensors systems as discussed above. In this regard, the review should consider an improved or enlarged DSP constellation in conjunction with a distributed sensor system, and a stand-alone distributed sensor system. These assessments must be completed before the Air Force commits to a multiyear procurement of DSP satellites 23–25.

The Air Force Request for Proposals for FEWS must explicitly solicit or encourage bids for distributed architectures. If none are forthcoming, the Air Force is directed to examine the feasibility and cost of such architectures. SDIO contracts for Brilliant Eyes and Pebbles have options for additional studies; SDIO is directed to include analyses of these technologies' potential contribution to the TW/AA and theater missile defense missions. Consistent with General Powell's letter to the committee, the Joint Chiefs of Staff are directed to ensure that unified and specified command requirements for non-strategic missile warning, assessment, and defense are defined unambiguously for both DSP and any follow-on program. The Air Force, SDIO, and the Army are directed to work together to implement the Army's ongoing effort to improve the DSP ability to detect and characterize tactical ballistic missile launches and to create a robust system to disseminate DSP data to appropriate echelons within the combatant commands.

The committee recommends a reduction of $20.0 million to the FEWS request. The committee believes that it is necessary to resolve the issues raised in this report before the demonstration/validation phase can be fully defined. Given the significant margin in both the DSP satellite pipeline and the FEWS program schedule, the committee believes that any resulting delays in defining the program are acceptable.

MILSTAR COMMUNICATIONS SATELLITE

The committee is pleased by the progress the Defense Department has made in restructuring the Milstar communications satellite program in response to congressional direction in the National Defense Authorization Act for Fiscal Year 1991. The committee approves the amounts requested for Milstar in the amended budget request for fiscal year 1992, but defers action on the fiscal year 1993 request.

The committee expects to be informed as soon as DOD decides how it will allocate medium-data rate capacity, which will be available on satellite 4 and other satellites, and in what orbits satellites 2 and 3 will be placed. The committee also directs that a new Selected Acquisition Report (SAR) for Milstar be provided to the congressional defense committees by May 15, 1992. This SAR update should show clearly the changes that will be made to the Milstar program as a result of the restructuring.

The Defense Department currently relies excessively on highly vulnerable satellite links to disseminate critical and time-sensitive intelligence information to tactical forces. The committee directs the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence to assess the practicality of substituting a secure Milstar data relay capability for the current vulnerable satellite links.

F–22 AIRCRAFT

The National Defense Authorization Act for Fiscal Year 1991 provided $200.0 million above the fiscal year 1991 budget request to continue the demonstration/validation phase of the Advanced Tactical Fighter (ATF) program, and included a provision that would prohibit full-scale development during fiscal year 1991. The committee recommended that provision because it concluded the Air Force had failed to adequately analyze alternatives to the ATF. The committee reserved its judgment on whether to proceed with full-scale development until it had evaluated the analysis provided by the Air Force.

The Air Force did undertake that evaluation and found that alternatives to the ATF were less expensive, but provided substantially less improvement in overall warfighting capability. The committee is convinced the ATF (now designated the F–22) meets the long-term air superiority requirements of the Air Force better than other alternatives. The committee commends the Air Force for conducting a thorough and unbiased evaluation of the alternatives.

Accordingly, the committee approves the amended budget request for the F–22, and recommends that the Air Force proceed with full-scale development.

COMMON SUPPORT EQUIPMENT DEVELOPMENT

During Operation Desert Shield/Desert Storm, Military Airlift Command aircraft loaders broke down frequently, were in short supply, and could not offload certain aircraft. In order to increase strategic mobility, the Air Force is currently developing a 60,000 lb. aircraft loader which should alleviate some of the problems experienced in the Persian Gulf. Unfortunately, management delays and funding cuts have compressed the test program and led the Air Force to scale back efforts to ensure reliability. The committee supports this program and recommends an increase of $2.5 million to avoid further schedule delays, to support proper testing, and to help ensure reliability.

INTERIM RECONNAISSANCE PROGRAM

One of the prominent lessons learned from Operation Desert Shield/Desert Storm is the widespread disappointment with current tactical reconnaissance capabilities. Unfortunately, the Air Force can do little to accelerate its long-term solution to the problem, the advanced tactical reconnaissance system (ATARS). The committee recommends funds to accelerate the ATARS program, but even at a faster pace, the ATARS will not be fielded until near the end of this decade.

The committee believes it is unwise to wait to field an improved tactical reconnaissance capability. Consequently, the committee recommends that the Air Force adapt the Navy's tactical air reconnaissance pod system (TARPS) for use on the F–117 aircraft. The committee understands that this would represent only an interim solution, but believes it is a needed response to the weaknesses demonstrated by Operation Desert Shield/Desert Storm. The committee recommends $25.0 million to design the necessary modifications to the F–117 to accept the TARPS.

TR-1/U-2 PROGRAM CONSOLIDATION

The U-2 and TR-1 variant reconnaissance aircraft provided valuable intelligence support in the Persian Gulf war, although the information was not always timely. The U-2 has been funded and managed within the national foreign intelligence program, while the TR-1 has been funded and managed within the Defense Department's tactical intelligence program and oriented toward the requirements of the U.S. European Command. A number of factors dictate that these two programs be consolidated, standardized, and used to support national users and the combatant commands worldwide.

The conference report (H. Rept. 4739) accompanying the National Defense Authorization Act for Fiscal Year 1991 directed the Secretary of Defense and the Director of Central Intelligence to develop a consolidation plan and report their recommendations to Congress by March 1, 1991. Although the Defense Department has testified that a decision has been made to consolidate the aircraft under the general defense intelligence program (GDIP), Congress has yet to receive a formal report.

Therefore, the committee directs the Department of Defense to consolidate the two programs in the GDIP and recommends that funds be transferred accordingly. This transfer shall include all programmed funds for the TR-1 and U-2 aircraft, engines, sensors, data links, and ground stations for RDT&E, procurement, and operations. These transfers are detailed for fiscal years 1992 and 1993 in the classified annex to this report.

In the face of the dense and capable Soviet high altitude surface-to-air missile threat, the Defense Department had abandoned the TR-1/U-2 fleet's former role as a penetrating reconnaissance system. The Persian Gulf conflict demonstrated, however, that the aircraft is fully capable of penetration missions in contingency operations after defenses have been suppressed.

This experience prompts reconsideration of the value of adding a self-defense suite to the platform as well as a real-time electro-optical imaging capability. The committee, therefore, directs the GDIP program manager to examine the costs and benefits of adding these capabilities to the consolidated fleet.

In a related action detailed in another section of this report, the committee recommends transferring advanced sensor, common data link, and ground station program funds from the airborne reconnaissance support program (ARSP) to the consolidated TR-1/U-2 program. The committee directs the GDIP program manager to perform trade-off studies between the transferred ARSP advanced signals intelligence (SIGINT) sensor program (Senior Smart) and the ongoing TR-1/U-2 Senior Glass product improvement program. The committee is very concerned that the generic threats for which Senior Smart is being developed a decade hence are really facing us today in contingency operations. The cost of Senior Smart has escalated significantly and its schedule has stretched. The Defense Department probably cannot afford to develop an entirely new SIGINT suite and at the same time improve existing systems for the TR-1/U-2, Rivet Joint, EP-3, and Guardrail to meet advanced threats.

AIRBORNE IMAGERY TRANSMISSION RELAY

The joint-Service advanced tactical airborne reconnaissance system (ATARS) program would provide electro-optical sensors for unmanned aerial vehicles and reconnaissance variants of the F-16 and F/A-18. This system would replace film-based imagery collection from the RF-4C aircraft. With a direct downlink and digital processing, ATARS would reduce the time required to process, exploit and disseminate time-critical tactical imagery.

However, ATARS has one important limitation. The collection platform must be in the direct line of sight of ground processing centers before the digital imagery can be transmitted. Since the collection platforms must penetrate far into enemy airspace at low level to collect imagery and then egress, the time saved over the RF-4C program is not sufficient.

To overcome this limitation, the program needs an airborne data relay capability. The Air Force has demonstrated such a capability. This airborne imagery transmission (ABIT) relay is an extension of the common data link system developed by the airborne reconnaissance support program (ARSP). The committee authorizes $15.0 million for the ATARS program to continue ABIT development in fiscal year 1992. The committee directs, however, that the common data link (CDL) program office manage the program.

The committee authorizes an additional $5.0 million to the CDL program to investigate and develop a generic airborne data relay capability to broadcast exploited imagery and other critical intelligence products to tactical units. Such a capability would compensate for severe data communications deficiencies within the tactical forces. A broadcast architecture also is consistent with lessons learned from the Persian Gulf conflict about intelligence dissemination.

FOLLOW-ON TACTICAL RECONNAISSANCE SYSTEM

The amended budget request included $35.7 million in Air Force aircraft procurement to begin acquisition of a reconnaissance variant of the F-16. As part of its tactical intelligence initiative, the committee recommends adding $19.6 million to the request to accelerate the airframe modification to allow immediate integration with the Advanced Tactical Airborne Reconnaissance System (ATARS) when it becomes available. This action would reduce the Air Force's reconnaissance gap by one year. In another section of this report, the committee recommends additional funds to develop an airborne data link for the Follow-On Tactical Reconnaissance System (FOTRS)-ATARS program to improve timeliness.

Operation Desert Shield/Desert Storm showed that very low-level penetration tactics for imagery collection make no sense once primary missile threats have been eliminated. A somewhat higher altitude capacity is essential in such conditions to escape anti-aircraft artillery fire. Consequently, the committee recommends that the ATARS program manager examine design changes to increase optical sensor focal length for adequate resolution at higher altitudes.

TACTICAL EXPLOITATION OF NATIONAL CAPABILITIES AND RELATED PROGRAMS

Each of the Services manages a program to leverage the large investment in national intelligence systems called tactical exploitation of national capabilities (TENCAP). In general, these programs have small budgets and receive scant attention and support from the Military Departments. And yet several of the intelligence systems most highly valued in the Persian Gulf were developed by the TENCAP programs. Likewise, the Rivet Joint program, the National Security Agency (NSA), the Defense Intelligence Agency (DIA) and the Central Intelligence Agency (CIA) have developed valuable tactical support capabilities for small amounts of money that provided significant support to tactical forces.

The committee directs the Assistant Secretary of Defense (Command, Control, Communications and Intelligence) (ASD(C3I)) to provide a full accounting of the communications, processing, and display systems developed by the TENCAP and Rivet Joint program offices, and by NSA, DIA, and CIA for tactical intelligence support. The committee requires a description of each program, including when it was developed, its development and procurement costs, how many are available, its role in the Persian Gulf, and future plans and budgets.

The committee believes that DOD could benefit from greater investment in TENCAP and related programs and that senior DOD management and the Services have not paid enough attention to these programs. The committee believes that the DOD plan to reorganize defense intelligence should improve this situation, but intends to monitor progress carefully.

The committee stresses that the existence in DOD of programs such as TENCAP and the defense reconnaissance support activities does not relieve national intelligence programs of responsibility for ensuring that they are able to support the combatant commands in wartime. While only DIA and NSA have been designated in law as combat support agencies, the other national programs clearly have a combat support role, as evidenced by experience in numerous crises and conflicts, and by established executive policy that transfers tasking authority to the Secretary of Defense in wartime.

The problem is that this role is not well-defined or understood. The committee therefore directs the Chairman of the Joint Chiefs of Staff to submit a report assessing combat support roles and missions that could be defined for appropriate activities or agencies within the national foreign intelligence program not currently designated as combat support agencies or activities. The committee requests that this report be submitted to the congressional defense committees by May 1, 1992.

NATIONAL LAUNCH SYSTEM

The amended budget request for the National Launch System (NLS) included $175.0 million in NASA, $147.7 million in the Air Force, and $27.0 million in the Strategic Defense Initiative Organization (SDIO) for fiscal year 1992. The fiscal year 1993 request is about $275 million in both DOD and NASA. The committee recommends $50.0 million for the Air Force and the requested amount within SDIO for fiscal year 1992. The committee directs that these funds continue engine development, minimal vehicle definition efforts, and payload interface planning. The committee recommends no authorization amount for fiscal year 1993.

As noted elsewhere in this report, the NLS is basically unfunded in the Future Years Defense Plan. In three major space programs alone, the Air Force faces unfunded liabilities of up to $15 billion. The committee questions whether the Air Force budget can accommodate all these programs given other competing priorities.

The committee recognizes the importance of improving the operational characteristics of our space launch systems. At this time, DOD does not require greater payload lift capabilities than those of the current Titan IV, but does require launch systems that are cheaper and more responsive, flexible, and reliable. The committee notes that the Air Force version of the NLS is justified on that basis. The committee also recognizes that DOD and NASA have found ways to reduce the cost of this program substantially, and that the DOD funding burden for a new heavy lift launch system has been reduced even more by splitting the cost with NASA.

The committee remains concerned, however, that this modernization effort will not survive in the face of declining budgets and competing priorities in DOD and NASA.

The committee believes that the initial NLS program acquisition cost could be reduced even more by deferring or eliminating certain items. Accordingly, the committee directs DOD and NASA to develop an acquisition plan option that would utilize the existing excess capacity in the shuttle vertical assembly building and existing shuttle launch facilities, and that would modify an existing Titan IV pad for NLS launches (after an initial transition period). The option plan also should defer the 20,000 lb. derivative vehicle and utilize existing, but modified, upper stages in lieu of a new cargo transfer vehicle. Based on this guidance, the option plan should calculate maximum NLS flight rates using existing shuttle facilities and assuming various shuttle flight rates.

The Defense Department also should carefully evaluate the likelihood that various payload block changes, which offer the opportunity for inexpensive transition to a new vehicle, will really occur at the times now projected and reassess NLS schedule requirements.

This option plan shall be considered by the administration in budgeting for NLS for fiscal year 1993 and beyond.

TITAN IV

The committee has a number of concerns with the Titan IV heavy lift launch vehicle.

One concern involves Titan IV cost increases and excess production and launch capacity. After the Challenger accident, DOD projected a need for about 10 Titan IV launches per year and established the necessary production rate and launch capacity. Unit costs for hardware and launch services were based on these projected rates. Now, DOD will launch at a maximum rate of six per year and unit costs will rise 20–30 percent.

Given that support for the National Launch System (NLS) is uncertain, the committee recommends that the National Space Council, DOD, and NASA consider options to implement the Augustine Panel's recommendations to reduce reliance on the shuttle by using the excess capacity in the Titan IV program. Existing upper stages, for example, could be modified to serve as cargo transfer vehicles, enabling the Titan IV to help resupply the space station.

Another concern involves the troubled solid rocket motor upgrade (SRMU) program, designed to increase Titan IV lift capacity by 25 percent. The contractor has failed to meet contract deliveries, which may constitute a basis to terminate the program for cause. The contractor is at or near the ceiling price for this effort, and the committee is not prepared to authorize additional funds beyond fiscal year 1992 without a thorough analysis of costs, risks, alternatives, and requirements.

The committee understands that the Defense Department is conducting these analyses and the committee expects to review the results before the Senate-House Conference on this bill.

THERMIONICS

The committee continues to believe that thermionic power technology is an important alternative to the ongoing SP–100 space nuclear power program. The only clear advantage of SP–100 would be in a moon base application in conjunction with a stirling engine. For propulsion and satellite applications, thermionics appears to be superior in terms of efficiency and survivability. The technical maturity gap between SP–100 and thermionics has narrowed considerably. Thermionic technology should be developed further to the point at which DOD can make informed decisions.

The committee recommends $5.0 million in fiscal year 1992 and $6.0 million in fiscal year 1993 for thermionic research, but only if the Department of Energy (DOE) and the Strategic Defense Initiative Organization (SDIO) sign a memorandum of understanding committing funds to the program. The committee recommends this condition because reactor research is not the responsibility of the Air Force. The committee expects to be informed of DOE and SDIO decisions prior to the Senate–House conference on this bill.

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
		DEFENSE AGENCIES R&D CHANGES						
1	61101E	DEFENSE RESEARCH SCIENCES	88,290	7,200	95,490	84,574		84,574
3	61103D	UNIVERSITY RESEARCH INITIATIVES	87,373	20,000	107,373	85,040	25,000	110,040
3a	61XXXD	DEFENSE GRADUATE FELLOWSHIPS		20,000	20,000		22,000	22,000
3b	61XXXD	K-12 EDUCATION PROGRAMS		10,000	10,000		15,000	15,000
3c	61XXXD	US-JAPAN TRAINING		10,000	10,000		10,000	10,000
3d	61XXXD	HBCU/MI S&E EDUCATION SUPPORT		15,000	15,000		15,000	15,000
7a		ADVANCED MATERIALS		15,000	15,000		25,000	25,000
9	62225D	CONCEPT EVALUATIONS	100,000	-100,000		100,000	-100,000	
11	62301E	STRATEGIC TECHNOLOGY	268,380	20,000	288,380	331,595		331,595
12	62702E	TACTICAL TECHNOLOGY	117,900	20,000	137,900	101,866		101,866
12a		ADVANCED SUBMARINE PROPULSION		5,000	5,000			
15	62712E	MATERIALS AND ELECTRONICS TECHNOLOGY	62,036	38,000	100,036	48,500	32,000	80,500
17	62715H	DEFENSE NUCLEAR AGENCY	441,141	-25,000	416,141	472,035		472,035
18	63214C	PHASE I DEFENSES	1,612,267	-986,884	625,383	1,593,406	—	—
19	63215C	LIMITED PROTECTION SYSTEMS	674,440	876,090	1,550,530	747,530	—	—
20	63216C	THEATER AND ATBM DEFENSES	279,460	578,000	857,460	340,680	—	—
21	63217C	FOLLOW-ON SYSTEMS	925,149	-180,540	744,609	1,016,342	—	—
22	63218C	RESEARCH AND SUPPORT ACTIVITIES	1,081,258	-259,240	822,018	1,235,261	—	—
28	63225D	JOINT DOD-DOE MUNITIONS TECHNOLOGY DEV	10,260	14,700	24,960	19,795	12,200	31,995
28a		DOD/DOE CRITICAL TECHNOLOGY MOU		5,000	5,000			
29	63226E	EXPERIMENTAL EVAL MAJOR INNOVATIVE TECH	289,700	-7,500	282,200	255,683		255,683
29b		ADVANCED ASW TECHNOLOGY		25,000	25,000			
29c		ADVANCED STOVL TECHNOLOGY		25,000	25,000		50,000	50,000
29d		LASER COMMUNICATIONS		20,000	20,000		20,000	20,000
29e		FUEL CELL TECHNOLOGY		4,000	4,000			
32	63569E	ADVANCED SUBMARINE TECHNOLOGY		45,000	45,000		50,000	50,000

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
33	63570E	PRE-COMPETITIVE TECHNOLOGY DEVELOPMENT		100,000	100,000		100,000	100,000
33a		CTACS		50,000	50,000		75,000	75,000
34	63704D	SPECIAL TECHNICAL SUPPORT	10,184	-10,184		9,690	-9,690	
37	63716D	STRATEGIC ENVIRONMENTAL RESEARCH PROG		100,000	100,000		300,000	300,000
38	63717D	EXCIMER LASER TECHNOLOGY		5,000	5,000			
43	63744C	TACTICAL MISSILE DEFENSE INIT - DEM VAL	508,000	-508,000		257,300	—	—
53	1160402BB	SPECIAL OPS ADV TECHNOLOGY DEVELOPMENT	13,700	5,200	18,900	15,100		15,100
58	63741D	AIR DEFENSE INITIATIVE	273,000	-55,000	218,000	316,000	—	—
59	64225C	TACTICAL MISSILE DEFENSE INITIATIVE FSD	70,000	-70,000		292,700	—	—
65	63709D	JOINT ROBOTICS PROGRAM	20,740	10,000	30,740	20,655		20,655
67	63714D	NON-ACOUSTIC ASW		40,000	40,000		45,000	45,000
		MOBILE OFFSHORE BASE		1,000	1,000			
		NON-LETHAL FORCE		1,000	1,000			
		JOINT SIMULATION OFFICE		50,000	50,000		50,000	50,000
		NATIONAL GUARD INITIATIVE		10,000	10,000		25,000	25,000
		IFSAR RADAR TECHNOLOGY		18,000	18,000			
77	35815D	GENERAL SUPPORT FOR SO/LIC		3,000	3,000			
79	1160404BB	SPECIAL OPERATIONS TACTICAL SYSTEMS DEV	194,290	18,800	213,090	162,898		162,898
80	1160405BB	SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEV	10,637	5,200	15,837	12,925		12,925
82	31011G	CRYPTOLOGIC ACTIVITIES	[ ]	[-59,564]		[ ]	—	—
83	31301L	GENERAL DEFENSE INTELLIGENCE PROGRAM	[ ]	[4,300]		[ ]	—	—

Line	PE		Amended FY 1992 Request	Senate Change	Senate Authorized	Amended FY 1993 Request	Senate Change	Senate Authorized
89	35154I	AIRBORNE RECONNAISSANCE SUPPORT PROGRAM	222,800	-222,800		301,800	-301,800	
92	35159I	DEFENSE RECONNAISSANCE SUPPORT ACTIV	52,876	15,000	67,876	49,835		49,835
94	35190D	C3I INTELLIGENCE PROGRAMS	8,600	5,300	13,900	7,500		7,500
96	35885G	TACTICAL CRYPTOLOGIC ACTIVITIES	[ ]	[8,800]		[ ]		
999		INTELL & COMMUNICATIONS CLASSIFIED	1,226,759	-46,464	1,180,295	1,142,822	-849,568	293,254
99	63705D	MANUFACTURING TECHNOLOGY		250,000	250,000		250,000	250,000
99a		MANUFACTURING EXTENSION PROGRAM		50,000	50,000		65,000	65,000
99b		FCIMS PROGRAMS		21,500	21,500		21,500	21,500
99c		MANUFACTURING ENGINEERING EDUCATION		25,000	25,000		25,000	25,000
99d		MANAGERS IN THE CLASSROOMS		5,000	5,000		10,000	10,000
99e		ADV. MFG. INTERNATIONAL ACTIVITIES		5,000	5,000		5,000	5,000
102	64722S	JOINT SERVICE EDUCATION AND TRAINING SYS DEV		20,000	20,000		20,000	20,000
103	65104D	TECHNICAL SUPPORT TO USD(A)	41,176	-29,200	11,976	49,632	-14,000	35,632
109	65112D	RAND NATIONAL DEFENSE RESEARCH INSTITUTE		21,800	21,800		22,900	22,900
112a		FOREIGN TECHNOLOGY MONITORING		17,500	17,500		10,000	10,000
118	65798S	DOD SUPPORT ACTIVITIES	14,200	-2,000	12,200	13,500		13,500
		DBOF- TECHNICAL CORRECTION: DTIC		4,200	4,200		3,800	3,800
		DBOF- TECHNICAL CORRECTION: IACS		1,800	1,800		2,300	2,300
		DBOF- DIRECT FUNDING FOR DCAA/DCMC					-148,900	-148,900
		TOTAL R, D, T & E DEFENSE AGENCIES		129,478			-117,258	
		DIRECTOR OF TEST & EVAL CHANGES						
1	64940D	CENTRAL TEST & EVAL INVESTMENT DEV (CTEIP)	125,527	-5,000	120,527	118,875		118,875
5	65804D	DEVELOPMENT TEST AND EVALUATION	109,400	-10,000	99,400	122,247		122,247
		TOTAL DEVELOPMENTAL TEST		-15,000				

SOFTWARE REUSE AND TECHNOLOGY TRANSFER

The committee is aware of the need to make the U.S. software industry more competitive on a global basis by improving methods of reusing existing software programs in additional applications and by improving methods of software development. The committee understands that the Defense Advanced Research Projects Agency (DARPA) has proposed to initiate new activities promoting this area of software technology development, including entering into cooperative agreements with existing software-only industry-based consortia such as the Software Productivity Consortium. The committee fully supports this DARPA initiative and recommends an increased authorization of $7.2 million for fiscal year 1992 for DARPA to undertake such an initiative. The committee directs that DARPA use a merit-based approach to select the best industry partner with which to participate in this undertaking.

DARPA INITIATIVE ON CONCURRENT ENGINEERING (DICE)

The committee believes that the Defense Advanced Research Projects Agency (DARPA) program should continue to support the use of concurrent engineering practices. This DARPA effort represents a unique undertaking in America that can help ensure that design-for-manufacture becomes an adjunct to design-for-performance. The Concurrent Engineering Institute, competitively established by DARPA, is an important element in developing advanced concurrent engineering design practices and in making these capabilities available to American industry. The committee authorizes an additional $20.0 million to continue this important initiative in fiscal year 1992. This represents the fifth year the committee has provided funding for this program. The committee believes that the fiscal year 1992 funding, when added to prior year appropriations, will permit the DICE program to proceed on its own merits. Therefore, the committee intends this funding to be a final authorization specifically targeted for the DICE program and recommends no additional funding for fiscal year 1993.

ACQUISITION OF ADVANCED HIGH PERFORMANCE COMPUTING SYSTEM TECHNOLOGIES

With the announcement of the fiscal year 1992 Presidential Initiative in High Performance Computing and Communications, some manufacturers have raised concerns about the purchase by the Defense Advanced Research Projects Agency (DARPA) of significant numbers of early copies of high-performance computers as an option associated with the research contract through which a company had initially received funds for the development of such machines. These machines are then disseminated under previously negotiated, favorable terms to government facilities, government contractors, and universities conducting defense-related research. Although this process has provided early access to advanced computing system technologies and has accelerated research and development in this field, early markets for such advanced computers are so limited that DARPA's practices have created the appearance that it is distorting the sale of computers in these markets.

In order to eliminate the potential for such distortion, the committee directs DARPA, in conjunction with its activities in the High Performance Computing and Communications (HPCC) Program and the Office of Science and Technology Policy (OSTP) to review and refine procedures for the Federal High Performance Computing and Communications Program. Such procedures should include continuation of the use of full and open competition for the acquisition of research and development prototypes of high performance computing systems and subsystems. Such contracts should be for a set time period and involve only the prototypes necessary for concept validation and critical feedback for supporting research. The number of prototypes should be limited to a small number, taking into account scaling properties of the technology and the need for access to such early systems to enable their accelerated maturation.

Such procedures may provide for the separate, expedited provision of copies of such early advanced high technology computing systems through the use of a general fast track proposal consideration process. Such a process should allow for the rapid consideration of proposals from developers and manufacturers. It should also allow for the award of short-form agreements for providing access to advanced high technology computing systems and subsystems (including those whose research and development was not funded by DARPA) for research purposes to government agencies and laboratories, DARPA grantees, and others involved in government-funded research. The committee believes this process would provide for the availability of products with different strengths and weaknesses from a variety of competitors who can thus offer combinations of service and price performance to customers seeking advanced high performance technologies for particular applications.

DARPA should explore a policy of recovering its R&D investment in those products developed under contract by charging a fee for copies of advanced computing technologies obtained for use in government-sponsored research. Such a fee could be placed in a revolving fund for reinvestment and could serve to eliminate distortion in this market caused by DARPA's support of particular technology development.

DARPA's research and development investment in high performance computing is critical to defense, the broader federal program, and the sustained strength of the national technology base. DARPA should continue to catalyze development of high performance computing technology and should insure widespread dissemination of its policy of not making vendor-specific requirements in order to ensure that DARPA and others involved in government-sponsored research have the freedom to choose from an increasing number of sources.

ACOUSTIC CHARGE TRANSPORT TECHNOLOGY

Acoustic charge transport (ACT) technology could save both the Defense Department and the U.S. civilian sector hundreds of millions of dollars while retaining a major new technology in America. The committee understands that the capability of ACT technology has been clearly demonstrated and that over 100 defense contractors are evaluating it for potential use in weapon systems.

In its report (S. Rpt. 101–384) accompanying the National Defense Authorization Act for Fiscal Year 1991, the committee directed that $5.0 million authorized for the DARPA tactical technology program be made available for continuing ACT technology development, and that an additional $5.0 million also be provided. The committee believes that this program merits continued support and provides an additional authorization of $10.0 million in fiscal year 1992 for DARPA under program element 62702E.

DARPA HYBRID MILLIMETER WAVE PROGRAM

Under its small business innovative research (SBIR) program, the Defense Advanced Research Projects Agency (DARPA) is conducting a program to develop hybrid format, millimeter wave circuits for Defense Department applications. Technology developed in this SBIR program could benefit many DOD weapons such as the Army's SADARM, the X-rod terminally guided projectile, the Air Force's millimeter wave Maverick guided missile, and the Army's low cost terminal guidance seeker program.

The amended budget request contained no funding to continue the program into its application phase. The committee strongly believes that the technology developed under this SBIR program should be pursued further. The committee provides an additional authorization of $10.0 million under program element 62702E to continue this technology development activity.

TACTICAL TECHNOLOGY

As a part of the advanced submarine technology program, the Defense Advanced Research Projects Agency has been investigating the possibility of using magnetohydrodynamic (MHD) propulsion on future classes of submarines. The committee understands that funding for the MHD program has been transferred to the tactical technology program. The MHD program holds great promise for reducing submarine acoustic signatures. The next step in the development process would be to build a model to conduct an open ocean hardware test of the MHD concept. The committee recommends $5.0 million in fiscal year 1992 for this purpose.

DEFENSE PLAN FOR MICROELECTRONICS TECHNOLOGY DEVELOPMENT

In the past, the committee has been urged to provide funding support for different advanced lithography programs, all of which were said to be essential to continued U.S. competitiveness in microelectronics. Recognizing the importance of this technology, the Congress has previously authorized the Defense Advanced Research Projects Agency (DARPA) to participate in a program to develop X-ray lithography technologies. With decreasing defense budgets, the committee now believes that any future authorization of defense funds for development of advanced lithography and its related technologies should be guided by a microelectronics technology road map. This road map should clearly establish the program goals, achievable milestones, and priorities for investments in microelectronics process development.

Many believe that advanced lithography is the most important sector in advanced mircoelectronics development. The committee is aware that there are several different advanced lithography options (including X-ray, deep ultraviolet and free-electron-laser), each with unique benefits and requirements related to sources, masks, metrology and materials. The committee believes that directing the Defense Department to invest in one or more specific areas of lithography or other microelectronic subsystem technology, in the absence of any road map tying all needed microelectronics developments together, is no longer appropriate.

The committee is aware that DARPA has been participating with the National Advisory Committee on Semiconductors and SEMATECH to develop such a road map. The committee strongly supports such an industry-led industry-government partnership to develop a microelectronics technology plan that will permit both sectors to make rational decisions on the assignment of priorities and allocation of resources.

FIBER METAL MATRIX COMPOSITES

The committee understands that advanced materials of all types will play a critical role in developing military and civilian products and technologies in the next decade and century. For example, next generation aerospace engines and airframes will be much lighter, faster, and more fuel efficient and will demand new materials specifically created to withstand the extreme heat and high stresses of hypersonic flight. Only metal matrix composites retain both the strength and stiffness at these extreme operating conditions and offer the best potential for providing these capabilities.

Because of the importance of this material, the committee has supported a DARPA-industry-academic partnership to develop continuous fiber metal matrix materials and manufacturing processes over the past two years. The intent of this program is to establish a full-scale production capability within five years after the start of this partnership. The committee regrets that the administration did not include funding for this program in its defense budget requests for the past two years. The committee believes that such partnerships are of the highest value because of the potential for future commercial and defense payoff. The nation cannot afford to miss the opportunity to exploit this potential and find itself dependent on foreign sources for these metal matrix fibers in the future.

Accordingly, the committee authorizes $26.0 million in fiscal year 1992 and $20.0 million in fiscal year 1993 to continue DARPA participation in the partnership to develop the technology and manufacturing processes for this important material.

MULTI-CHIP MODULE DEVELOPMENT

Advanced multi-chip module technology programs offer significant increases in speed, packing density, and reliability with accompanying decreased size, weight, and cost. The committee believes that this technology offers the next opportunity to significantly increase microelectronics performance and the potential for U.S. industry to regain lost market share.

The committee is aware that the Defense Advanced Research Projects Agency (DARPA) is investigating technologies intended to improve both the performance and producibility of these multi-chip modules. Further developments in two enabling materials technologies are required to realize the full potential of multi-chip modules. These are the cost-effective production of synthetic diamond film material to be used as substrate material, and the use of high temperature superconducting materials to be used as a conductor along with the synthetic diamond substrates. The committee fully endorses this development effort and recommends an additional authorization of $12.0 million in fiscal year 1992 and 1993 for program element 62712E.

DEFENSE NUCLEAR AGENCY

The amended budget request included $441.1 million for the Defense Nuclear Agency (DNA), an increase of $115.8 million over the fiscal year 1991 appropriation. This increase is due to an initiative by the Secretary of Defense to transfer funding responsibility for survivability and hardening technology activities from the individual Service programs to DNA. The development of most survivability technology has been funded by individual program managers in the Services and the Strategic Defense Initiative Organization (SDIO), through the transfer of a portion of their program funds to DNA for research and development of survivability technology. This process often leads to uneven funding for survivability technologies, or even abrupt curtailment of research, when program offices find projects beginning to overrun program budgets. The committee notes with approval that the 1988 DOD Directive 4245.4, *Acquisition of Nuclear Survivable Systems,* assigns DNA the obligation to independently advise DOD acquisition authorities on all aspects of system hardness, survivability, vulnerability, and effectiveness for offensive, defensive, and space systems.

This year, for the first time, the Secretary of Defense has placed these funds in the DNA budget, rather than in the individual program offices of the Services and SDIO. The committee is disappointed that the descriptive material accompanying the budget submission gives undue emphasis to the relevance of proposed 1992 work to SDI. The committee does not intend that the DNA projects "AI, System Hardness Validation Methodology" and "AJ, Lethality and Target Hardening" should be used for development or testing of actual SDI prototype hardware. Rather, the committee intends that DNA should conduct generic technology base development for offensive and defensive systems survivability, with testing of candidate survivability and hardening technologies, so that tested and validated hardening technology will be available for systems developers. The committee applauds the consolidation and expects that substantial savings will accrue. The committee therefore recommends funding of $416.1 million in fiscal year 1992, $25.0 million less than the requested amount.

The committee further directs that, if any specific test articles intended to be part of a system prototype of any Service or Defense Agency are to be subjected to a test environment provided by DNA, then such testing is to be conducted with funds appropriated to that Service or Defense Agency and transferred to DNA.

In the past year, DNA has made impressive progress in electric armament technology. Advances in pulse power storage and electrothermal chemical cartridges suggest that significant velocity and range improvements are possible for a variety of gun and artillery applications in the near term. DNA has demonstrated the ability to apply constant pressure to a projectile through the controlled release of stored electric energy with high efficiency levels. This technology appears to be the only way to increase gun performance significantly without fundamentally changing gun designs. Moreover, the high energy propellants used in this technology are much safer than conventional propellants, and the pulse power storage devices are non-explosive.

The committee recommends that $20.0 million of DNA's requested budget be applied to the electric gun technology program. The committee believes that DNA and DOD as a whole should budget additional amounts for this technology in future years. The committee encourages the Balanced Technology Initiative to support the DNA efforts. The committee also supports the DNA efforts to establish cooperative programs with other NATO countries.

Finally, the committee believes that DNA should work with the Defense Advanced Research Projects Agency (DARPA) on phase two of the DARPA Tin Yolk program. Tin Yolk is an important program to increase the survivability of critical strategic nuclear systems. The committee recommends authorization of $5.0 million for this purpose.

JOINT DOD-DOE MUNITIONS TECHNOLOGY DEVELOPMENT

The amended budget request for the Joint DOD–DOE Munitions Technology Development Program contained $10.3 million for fiscal year 1992 and $19.8 million for fiscal year 1993. The Joint DOD–DOE Munitions Technology Development Program provides funds for the Department of Defense to call upon the highly specialized skills in the Department of Energy's three weapons laboratories (Lawrence-Livermore National Laboratory, Los Alamos National Laboratory, and Sandia National Laboratory) for research, consultations, and testing of advanced conventional munitions. The program has been highly successful, and the annual requests for assistance exceed the available resources.

The program was funded last year at a level of $18.0 million, and the committee sees no logic to the administration's proposal to cut funding significantly in fiscal year 1992 and then increase it significantly the following year. Accordingly, the committee recommendation would increase the request by $14.7 million for fiscal year 1992 and by $12.2 million for fiscal year 1993. The committee also recommends the establishment of a counterpart program within the Department of Energy defense programs (discussed elsewhere in this report).

DEFENSE DEPARTMENT AND ENERGY DEPARTMENT CRITICAL TECHNOLOGIES MEMORANDA OF UNDERSTANDING

The committee understands that the Department of Defense and the Department of Energy are negotiating a memorandum of understanding on cooperation in the research and development of critical defense technologies which is intended to take advantage of the highly specialized skills in the Department of Energy's three weapons laboratories. The committee authorizes an additional $5.0 million in fiscal year 1992 to begin joint DOD–DOE R&D projects in critical defense technologies of importance to both agencies, with the understanding that the DOE laboratories will match this amount. The committee recommends that the Director, Defense Research and Engineering establish a new program element in fiscal year 1993 for a continuing joint program between DOD and DOE and include $30.0 million funding in the defense budget request for that year. This program should include projects on which the DOE laboratories team with U.S. industry to provide fast-track development of advanced technology systems and subsystems for urgent DOD applications.

ADVANCED ASW TECHNOLOGY

The advanced antisubmarine warfare (ASW) technology program, which is included in the DARPA experimental evaluation of major innovative technologies (EEMIT) program, is exploring ways of applying massive computer processing capability to solving ASW problems. Although the amended budget request for EEMIT included $25.0 million in fiscal year 1992, the committee understands that the funds have since been redesignated for the submarine technology (SUBTECH) research program. The committee understands that the Navy's "Project Centurion" is important and depends on products of the SUBTECH program.

The committee, however, believes that the advanced ASW technology program is also critical for overcoming the erosion of U.S. ASW advantages. This program will develop an advanced sonar automation testbed to demonstrate whether high performance computing can make revolutionary gains in ASW capability when applied to signal and information processing.

The committee recommends $25.0 million in fiscal year 1992 for this program.

ADVANCED SHORT TAKEOFF AND VERTICAL LANDING AIRCRAFT (ASTOVL)

The fiscal year 1992 amended budget request included $289.7 million for "experimental evaluation of major innovative technologies." The committee is aware of an emerging aircraft concept, currently under evaluation by the Defense Advanced Research Projects Agency (DARPA), that offers great potential as a future generation multi-role/strike fighter.

Further, the committee believes that technologies have become available that could allow the Department of Defense to develop a STOVL aircraft which offers low cost, stealth, speed, and agility. Such an aircraft, whose production availability would coincide with the retirement of current generation multi-role and strike aircraft, would present an excellent candidate for multi-Service development by the Navy, Air Force, and the Marine Corps.

Accordingly, the committee recommends an authorization of an additional $25.0 million in fiscal year 1992 and $50.0 million in fiscal year 1993 in DARPA project EE-24 ("ASTOVL") to explore the concept of a STOVL strike fighter (SSF).

Additionally, the committee directs the Director of DARPA, in conjunction with Navy, Air Force and Marine Corps aviation planners, to develop and submit to the Committees on Armed Services of the Senate and the House of Representatives an evaluation of Service potential, proposed development schedule, and projected funding stream for the SSF.

SUBMARINE LASER COMMUNICATIONS

For several years, the committee has expressed concern about the potential vulnerabilities incurred by our submarine fleet because of the need to communicate with other parties. This requirement for coordination is particularly important for attack submarines if they are to: (1) operate covertly, particularly in areas where low frequency acoustic systems are illuminating an ocean basin, and (2) provide adequate support for battle group operations.

The committee notes that the Navy's command and control organization appears ready to begin funding efforts within the Navy to help resolve some of the uncertainties about total program costs and whether laser communications can be conducted without putting submarines at greater risk of detection. The committee is aware of the significant results produced by the at-sea testing in the Defense Advanced Research Projects Agency (DARPA) tactical airborne laser communications (TALC) program, but believes that several remaining key issues need resolution before a space-based or an airborne laser communications system can be developed.

The committee recommends $20.0 million for both fiscal years 1992 and 1993 to continue the submarine laser communications technology developments directed towards satellite-based deployment. Any system developed for a space application could always be fielded in an aircraft system, although the reverse is not necessarily the case.

Specifically, these funds should be used to develop and demonstrate a near-term, space-capable, blue solid-state laser prototype; to conduct experiments designed to resolve key technical issues associated with a laser uplink from a submerged submarine to a satellite; and to explore new technologies for more efficient blue lasers and robust laser uplinks. DARPA and the Navy should conduct system trade-off studies to assess the costs and operational utility of a satellite laser communications system utilizing modified-TALC technologies. The Defense Department should provide a report on that assessment to the congressional defense committees with the submission of the fiscal year 1993 amended budget request.

FUEL CELL TECHNOLOGY

The committee recognizes that fuel cell technology has been identified as one of the critical requirements for development of improved unmanned undersea vehicles and swimmer delivery vehicles, and it may lead to breakthroughs in design of underwater weapons and larger manned submarines. Last year, the committee recommended $4.0 million for development of fuel cell technology, based on the Navy's "Report on Developing Long-Endurance Unmanned Undersea Vehicles and Concepts for Handling Unmanned Undersea Vehicles from Surface Combatants", dated February 13, 1990.

The committee recommends an additional $4.0 million to continue last year's program. The committee encourages the administration to identify a specific line item and program element in which fuel cell technology development should be funded.

SPECIAL TECHNOLOGY SUPPORT

The amended budget request included $10.2 million for fiscal year 1992 and $9.7 million for fiscal year 1993 for a special fund administered by the Deputy Assistant Secretary of Defense for Intelligence. The fund would allocate money for rapid technology development to satisfy requirements articulated by the unified commands' intelligence staffs. Although the committee supports efforts to improve joint capabilities, it sees no requirement for a special fund within the Office of the Secretary of Defense. The CINC initiative programs, with oversight from the Office of the Chairman of the Joint Chiefs of Staff, should be used to satisfy such requirements. Therefore, the committee recommends no funding for this program in fiscal years 1992 and 1993.

LOW-COST DIGITAL TERRAIN MAPPING

Operation Desert Storm provided the first convincing demonstration of long range cruise missiles. The guidance system for such missiles currently depends on digital terrain maps that are derived from time consuming and expensive mapping techniques. The committee understands that the Defense Advanced Research Projects Agency (DARPA) is examining alternative ways to develop low cost methods for developing digital terrain maps for target acquisition. As stated elsewhere, the committee is convinced that future conflict will require greater use of stand-off and autonomously guided smart munitions. Finding ways to develop low-cost digital terrain maps is an important potential element in developing affordable autonomous guidance systems. Consequently, the committee recommends an increase of $18.0 million for this DARPA program.

STRATEGIC ENVIRONMENTAL RESEARCH AND DEVELOPMENT PROGRAM

The committee recommends $100.0 million for fiscal year 1992 and $300.0 million for fiscal year 1993 for the Strategic Environmental Research and Development Program (SERDP). Created in the National Defense Authorization Act for Fiscal Year 1991, SERDP has three main research areas: (1) environmental data gathering and analysis; (2) environmental compliance and advanced energy technologies; and (3) technologies for environmental clean-up.

The Departments of Defense and Energy have been slow to implement the SERDP. The Council has met once and the Advisory Board has not yet been appointed. It does appear, however, that the Department of Defense is beginning to implement the program and that full implementation will begin in fiscal year 1992. In the last several months, the Department of Defense, including the military Services, the Department of Energy, and the Environmental Protection Agency have been working hard to review and complete proposals for presentation to the Council, to allow program implementation to begin on October 1, 1991. The committee commends these recent efforts and hopes that earlier problems have been resolved so that DOD, DOE, and EPA can work cooperatively in the future.

Research Funding

During hearings held on the SERDP, the committee learned that the Department of Defense, the Department of Energy, and the Environmental Protection Agency were contemplating an arbitrary division of funds among them. While the committee appreciates the DOD, DOE, and EPA efforts to implement the SERDP, the committee wishes to reiterate that the decision to fund research and environmental projects is to be based on the merits of each proposal. The SERDP enabling legislation does not specify any amount of funding for any agency or for any research area. Funding decisions are to be made solely on the merits of the proposal and research priorities established by the Council. The committee directs the members of the SERDP Council to base their funding decisions on the merits of proposals, not on arbitrary funding guidelines.

When making funding decisions on research proposals for environmental compliance and clean-up technologies, the Council should give particular emphasis to those that can be of potential benefit to the Department of Defense and to problems that are of concern to both the Department of Energy and the Department of Defense. The committee encourages the Council to utilize to the fullest extent possible the excellent skills and talents in the federal laboratories, federal contract research centers, and colleges and universities.

The Council has not yet issued policies and procedures to implement fully the SERDP. The committee urges the Council to issue such policies as soon as possible and to include provisions for receipt of proposals from colleges and universities.

Environmental Data Gathering and Analysis

The Council should also ensure that adequate funding is provided in the area of environmental data gathering and analysis. The committee is concerned that sufficient attention is not being given to research proposals and initiatives in this area. For that reason, the committee urges the Council to devote more attention to research in this area utilizing the authorization recommended for fiscal year 1992.

The Council should take advantage of and expand upon the many environmental data gathering activities of the military Services, such as sensor development and small satellite development.The committee further recommends that the Council should continue the data gathering, data analysis, model development, and validation efforts associated with global climate change resulting from man-made or naturally occurring atmospheric smoke or particulate obscuration. The recent volcano eruptions around the globe offer excellent opportunities to gather additional data which can be used to validate existing or new models of this phenomena.

In addition, the Council should work closely with the Advisory Board and the Director of the Central Intelligence Agency to establish a working group to facilitate environmental data gathering and analysis activities, and to declassify relevant information where possible.

Joint Chiefs of Staff

The Vice Chairman of the Joint Chiefs of Staff has expressed concern to the committee about his role on the Council. Although the Vice Chairman will probably not bring any particular environmental expertise to the Council, he does bring an equally important asset, control over military platforms that may be of use, consistent with the military mission, in environmentally related activities. For that reason, the committee views the Vice Chairman as a valuable asset to the Council, while at the same time recognizing that his degree of participation in the SERDP will generally be less than that of other members of the Council.

EXCIMER LASER TECHNOLOGY

The committee recommends $5.0 million for fiscal year 1992 to accelerate the development and demonstration of high-resolution imaging technology. The committee directs the Director of Defense Research and Engineering to assess alternative concepts for imaging systems and recommend a program plan. As yet, there are no formal requirements and no funding sponsor for the acquisition of high-resolution imaging. The committee believes that such a capability would contribute to several missions, including space control, satellite anomaly resolution, and intelligence assessments.

The funds provided by Congress in fiscal year 1991 for Air Force excimer technology efforts should be sufficient through fiscal year 1992, provided that the requested amounts for advanced technology are appropriated and that the planned below-threshold reprogramming is executed. The committee expects the Air Force to seek a prior-approval reprogramming request to keep these efforts on track if the conditions described above are not met.

BALANCED TECHNOLOGY INITIATIVE

In its report accompanying the National Defense Authorization Act for Fiscal Years 1990 and 1991 (S. Rept. 101-81), the committee expressed its concern over the Defense Department's failure to manage and implement the Balanced Technology Initiative (BTI) in a way that satisfied the original intent of Congress. Accordingly, the Defense Department was directed to take several specific steps intended to ensure that the initiative was properly directed against the threat, that it was overseen by an independent review group, and that funding of projects of marginal utility or promise was discontinued. Finally, the committee expressed its concern over the apparent lack of involvement and management attention by the Director, Defense Research and Engineering (DDR&E) and urged his greater involvement.

The committee is pleased with the progress that the Defense Department has made in restructuring BTI and notes that several of its projects are demonstrating high potential for follow-on development. Some BTI projects have already been successfully demonstrated in the field. For example, the committee is aware of the initiative's successful development and deployment of a low probability of intercept radar into special purpose C-130 aircraft within 18 months and at a total cost of less than $30.0 million. In another example, the Hawkeye Artificial Intelligence Module, used to automatically process intelligence reports and more accurately and quickly extract facts and deduce conclusions for multiple inputs, was successfully deployed with combat units in the Persian Gulf and met all performance expectations. It is credited by deployed units with compressing what would have been a 48-hour target development activity into 12 hours and was credited for the success achieved in destroying Iraqi command and control nodes. Another BTI system, the Image Exploitation System, intended to automatically detect, recognize, position, and monitor military ground forces, was being reconfigured at the request of the U.S. Central Command to support Operation Desert Storm and would have been deployed to the Persian Gulf if the war had not been so quickly concluded.

Based on these demonstrated successes, and the improved DOD management of the initiative, the committee strongly recommends continued support of BTI and includes $191.6 million in funding, the amount requested by the administration. The committee is also concerned about the impact of congressional direction or "earmarking" of the overall BTI program to support specified projects of interest to individual members or constituents. The committee has long supported the philosophy of permitting DOD to make management decisions on the BTI projects consistent with the original intent of Congress in establishing the BTI program. The committee believes that this management philosophy is well suited to provide the DDR&E with the flexibility and responsiveness needed to accommodate unanticipated opportunities and to meet newly emerging threats. In summary, the committee's concerns over the execution of the BTI program have now shifted from inadequate management attention and planning within the Defense Department to the inappropriate earmarking for specific projects that is occurring in Congress outside of this committee.

AIR DEFENSE INITIATIVE

The amended budget request included $273.0 million for fiscal year 1992 and $316.0 million for fiscal year 1993 for the Air Defense Initiative (ADI).

The committee is pleased that the ADI has been given an explicit mission to support theater air defense RDT&E against advanced air-breathing threats. The committee also notes that the ADI program closely cooperates with other programs working to counter future advanced threats.

The committee, however, cannot support a doubling of the ADI budget from fiscal year 1991 levels. The committee believes that the least important ADI program is the airship technology effort. This program represents little technology risk, and its design and utility depend entirely on the success of high-risk sensor technologies. Therefore, the committee recommends a reduction of $55.0 million to the requested amount. The committee recommends no authorization for fiscal year 1993 for ADI.

The committee believes that the antisubmarine warfare (ASW) technology programs within ADI are important for tactical warning/attack assessment of threats against the continental United States (CONUS) as well as for the Navy's tactical ASW capabilities. These programs have been well managed by ADI.

The amended budget request for ADI included about $40 million for ASW technologies. A substantial portion of this amount would be applied to low-low frequency active (LLFA) sensor and processing technology. The committee understands the Navy's desire to test this technology with full-scale equipment to determine its utility for basin illumination, but notes that the Navy has not budgeted for the substantial costs of the platform. The committee does not intend to fund a full-scale test at the expense of other ADI antisubmarine warfare programs or air defense efforts. The committee recommends that the ADI program consider applying available and planned LLFA funds to a full-scale test program over a longer period to accommodate Navy and CONUS defense requirements.

ROBOTICS MINE-CLEARING TECHNOLOGY

The committee is aware of progress in the joint unmanned vehicles (robotics) program, and the valuable response of the program in supporting mine clearing applications during Operation Desert Storm. The committee recommends an additional authorization of $10.0 million each year in fiscal years 1992 and 1993 for the Joint Unmanned Ground Vehicle Program (program element 60370D). These funds would provide for simulation and analysis of unmanned mine clearing and reconnaissance and research in robotic techniques for identification, labeling, and neutralization of mines.

ADVANCED TECHNOLOGY TRAINING FOR NATIONAL GUARD ROUND-OUT BRIGADES

The committee notes the controversy concerning the three Army National Guard round-out brigades that were mobilized during Operation Desert Shield/Desert Storm. The committee believes that the criticism of the round-out brigades is misplaced. The round-out concept never presumed that round-out brigades were immediately ready for deployment. The round-out concept always anticipated a period of post-mobilization training. All three of the brigades underwent post-mobilization training, met combat proficiency standards, and would have been deployed to Southwest Asia had they been needed. The committee notes that these units—had they been mobilized in late August/early September 1990—would have completed their post-mobilization training in ample time for deployment for the land campaign, since many of the forward combat units did not arrive until late January 1991.

The committee notes that advanced technology can be used in the area of simulation and training aids to substantially improve the training program for National Guard round-out brigades. Distributed digital networks linking armories and higher command headquarters can become the backbone of both a peacetime training program and a wartime mobilization system. Advanced computer-based devices (such as electronic sand tables, semi-automated opposition forces, and distributed conferences) can facilitate the functional integration of geographically separated elements of a unit in peacetime as well as aid operations planning and execution in wartime.

The committee recommends that the National Guard Bureau identify a round-out brigade as a test bed and work with the Defense Advanced Research Projects Agency (DARPA) to develop an advanced technology training system that emphasizes improved mobilization of round-out brigades. The committee recommends an authorization of $10.0 million in fiscal year 1992 and $25.0 million in fiscal year 1993 to initiate such a program. This program should not replace current simulation programs within the National Guard, but should instead develop a comprehensive combined arms training strategy and prototype that strategy through distributed simulation devices. The committee cautions the Bureau and DARPA to adopt an open architecture at the outset to permit the widest possible participation by industry and facilitate growth as other training devices and simulators become available.

DEFENSE MODELING AND SIMULATION OFFICE

Last year Congress directed the Department of Defense to establish a DOD-wide office to coordinate a Department-wide approach to simulators and training devices for both acquisition and training purposes. This office would establish uniform and disciplined approaches for the use of modeling and simulation throughout the Department. Although the Department initially proposed to rescind the funds appropriated last year, it has subsequently reconsidered its position and taken the steps necessary to establish an Executive Council for Modeling and Simulation (EXCIMS) and a Defense Modeling and Simulation Office (DMSO). The committee is gratified that the Department has taken such a constructive approach.

The committee expects the DMSO to serve as the focal point for a uniform and disciplined approach to Department-wide use of models and simulations that would ensure that standards for interoperability are applied. The Department should ensure that the DMSO office is adequately staffed to support its mandate.

Because the implementing directives were not signed until recently, the amended budget submission does not include funds to carry forward the work of the DMSO in fiscal years 1992 and 1993. Consequently, the committee recommends an authorization of $50.0 million for both fiscal year 1992 and fiscal year 1993.

While the committee strongly supports the actions to date, the committee questions whether the current management plan includes sufficient technical support to the Executive Council and staffing for the DMSO. The committee directs the Department to submit to the congressional defense committees at the time the budget is submitted an annual report that highlights the progress and accomplishments of the DMSO in providing proper oversight of modeling and simulation in the Department. The first report should address the committee's concerns over the adequacy of technical support available to the DMSO and the EXCIMS.

UNMANNED AIR VEHICLE LANDING SYSTEMS

Congress established the joint program office for unmanned air vehicles (UAV) to eliminate redundant development efforts among the Military Departments. The committee is concerned that this aspect of the joint program office's charter is incomplete.

The committee understands that even though there are opportunities to develop common automatic recovery systems, many vehicle-unique approaches continue in development. The committee believes this is precisely the kind of problem the joint program office is supposed to solve. The joint program office should intensify its effort in such areas.

SPECIAL OPERATIONS FORCES

The committee recommends a package of funding initiatives to strengthen the capabilities of U.S. special operations forces. The background and procurement items of this package are explained in title I of this report.

The following research and development activities would receive additional funding in this package:

1. *MK V fast patrol boat for SEAL insertion ($5.0 million).*—This initiative would fund the development of a fast patrol boat that would replace the MK III and IV boats. The funds would be used to develop a design, prepare specifications from the approved operational requirements, draft a Request for Proposals (RFP), and conduct a comprehensive market survey.

2. *Coastal patrol boats ($3.8 million).*—These funds would support the development of the stabilized weapons platform for the coastal patrol boats.

3. *Joint Advanced Special Operations Radio System (JASORS) ($10.0 million).*—This initiative would fund a shortfall that could delay the development of the JASORS radio. A recent independent technical assessment of JASORS concluded that the total funds programmed for its development are adequate. However, the distribution of the funds over the next several years is unbalanced with a shortfall in the second and third years of the program (fiscal years 1992 and 1993).

4. *General support for Assistant Secretary of Defense (Special Operations and Low Intensity Conflict) ($3.0 million).*—This initiative would continue a small research and analysis account, like those already in the amended budget request for similar offices, for the Office of the Assistant Secretary of Defense (Special Operations and Low Intensity Conflict). Since the Congress established this account for fiscal year 1991, the Office of the Assistant Secretary has undertaken an active and useful program of analysis that the committee believes should be sustained.

5. *Constant Source ($5.2 million).*—This initiative would support the development of a capability for all special operations aircraft to receive important intelligence information. These funds are required in fiscal year 1992 in order to begin production in the following fiscal year.

6. *Language and voice identification ($2.0 million).*—This initiative is discussed in the classified annex to this report.

7. *See-into-wall imaging ($2.0 million).*—This initiative is discussed in the classified annex to this report.

8. *Imagery receiver ($1.2 million).*—These funds would develop a worldwide, secondary imagery receiver for special operations forces. This lightweight, highly mobile, secure capability will improve the tactical intelligence available to deployed special operations units.

DEFENSE COMMUNICATIONS SYSTEM

The National Defense Authorization Act for Fiscal Year 1991 required a report on satellite communications relay requirements, architecture, and programs by April 1, 1991. The committee has yet to receive this report. The committee expects to receive this report prior to the Senate–House conference on this bill.

The committee applauds the Defense Department for its recent initiative on corporate information management and for its future plans for the defense communications system (DCS). Over the long term, DOD hopes to lease from the commercial sector a common backbone network providing integrated voice, message, and data services, albeit with unique features for security, redundancy, and precedence. This long-term plan appears to be consistent with current law and policy mandating use of FTS–2000, which is administered by the General Services Administration (GSA).

The Defense Department rightly is exempt from FTS–2000 requirements for command and control-related functions. The committee recognizes also that functions that appear to be administrative in peacetime become essential aspects of command and control in wartime. It makes no sense to force DOD to pay high costs for FTS–2000 services for peacetime administrative activities and incur the expense of a separate wartime command and control network.

At the same time, the Department's own long-range plans for the DCS reflect confidence that the commercial sector is evolving in ways that could satisfy DOD peacetime and wartime requirements with one system. Over the long term, therefore, the committee encourages DOD to plan to transition to FTS–2000, provided that GSA can demonstrate competitive pricing and competent service; that DOD retains authority to define its requirements; and that FTS–2000 can satisfy DOD integrated peacetime and wartime requirements.

The committee is impressed with the Navy's Copernicus command, control, and communications (C3) initiative. The Navy appears to have discovered some problems and solutions that apply to all DOD C3 systems. Examples include the need to reduce the volume and redundancy of the information that is sent to tactical commanders. At the same time, ways must be found to utilize existing communications capacity more efficiently. The Navy's concept is to develop a capability to route information over any of the various satellites and networks already available. The Navy's program also stresses common hardware, standard formats and interfaces, and a shift from text to data.

The committee believes that the Navy's Copernicus program has defense-wide applications; therefore, it urges DOD to bring Copernicus into a joint planning process.

AIRBORNE RECONNAISSANCE SUPPORT PROGRAM

The administration has proposed to initiate a major new program within the Airborne Reconnaissance Support Program (ARSP). While the committee supports an improvement in our overall tactical reconnaissance capability, especially in light of the serious problems in Operation Desert Storm, the committee concludes that the program proposed by the administration fails to address the problems experienced in Operation Desert Storm. The proponents for expanded tactical reconnaissance have confused "information" and "data." The program proposed within the ARSP is too heavily focused on providing more data to operators, rather than information to decision makers. The committee believes that the administration should emphasize improving the evaluation and distribution of information rather than expanding the technical data available. Therefore, the committee directs the Department to terminate this program and recommends an alternative approach. The classified annex to this report contains more detailed observations and directions.

ARSP was formed in the mid-1980s by congressional direction as a mechanism for setting policy, ensuring interoperability among DOD airborne reconnaissance programs, and coordinating operations by airborne and other collection systems.

The Defense Department, however, has never assigned this function to the ARSP. Instead, it has become a program manager for a single development effort with no overarching policy or oversight role. Therefore, the committee recommends that the ARSP be abolished, and that remaining authorized programs be transferred to the consolidated TR-1/U-2 program.

The committee continues to believe that a management group is required within DOD to establish guidance and objectives for the various airborne reconnaissance programs. This group should have the authority to approve, deny, or initiate airborne reconnaissance activities for national- and theater-level systems. The committee also continues to believe that airborne and other national reconnaissance activities should be coordinated and complementary; therefore, it has no objection to associating an airborne reconnaissance management group with the Defense Support Program Office, provided that an explicit charter is developed that details its authorities. This management and oversight group should leave program execution to existing program offices.

WIDE AREA SURVEILLANCE

The amended budget request included $8.0 million for the Defense Support Program Office (DSPO) to identify recommendations for improving the ability of national intelligence systems to support the combatant commands' wide-area surveillance requirements. The committee approves the requested amount, but stresses that the DSPO study should not be narrowly focused on surveillance issues associated with the services' space-based surveillance programs, which have become technology base efforts.

Instead, the DSPO study's goals should be to identify ways that existing and planned systems, with or without modification, could be used to improve wartime support to the combatant commanders. The committee believes that such studies must be done routinely by DSPO to guide DOD investments in exploiting or augmenting national systems.

INTELLIGENCE COMMUNICATIONS ARCHITECTURE PROJECT

The committee commends the intelligence communications architecture (INCA) project office for its efforts to improve the dissemination of intelligence throughout the national and tactical program areas. INCA assessments of intelligence communications during Operation Desert Shield played an important role in preparing for the success of Operation Desert Storm.

As part of the committee's tactical intelligence initiative, the committee recommends an additional $5.3 million in RDT&E (Defense Agencies) and $6.2 million in the General Defense Intelligence Program (GDIP). It also recommends the transfer from within GDIP of $5.7 million identified for the theater intelligence architecture program (TIAP) to the request for INCA. These funds will support communications architecture development for the new Joint Intelligence Centers and the combatant commands.

NATIONAL CENTER FOR MANUFACTURING SCIENCES

The National Center for Manufacturing Sciences (NCMS) represents one partnership between industry, academia, and government that has successfully leveraged collaboration to the mutual benefit of all involved. One of the primary goals of the Center is to gather and disseminate to all involved partners the latest information on advances being made in manufacturing science and technology. It also acts to identify, develop, and deploy long-term technological advances that combine to strengthen U.S. manufacturing capabilities and to make them globally competitive.

The committee believes that the effectiveness of the NCMS will be significantly enhanced if all barriers are removed preventing close cooperation between research, development, manufacturing, and maintenance laboratories and facilities of the Defense Department and the NCMS. Accordingly, the committee authorizes and encourages the Secretary of Defense to enter into a memorandum of understanding with the NCMS that will, on an agency-wide basis, provide for greater access to these defense laboratories and facilities and accelerate the co-development and transfer of advanced manufacturing technologies.

The committee notes that under the President's December 16, 1986 domestic action plan for the machine tool industry, the Department of Defense was to provide the NCMS with up to $5.0 million per year over the following three years in a cost sharing arrangement with the private sector. The committee believes that the

Department has more than honored this commitment made by the President. It now believes, however, that any additional support for the NCMS should be provided by the Department of Defense as a part of its overall manufacturing technology program using normal contracting methods. The committee therefore directs the Defense Department to enter into contract negotiations with the NCMS to support activities of the NCMS in the areas of flexible computer integrated manufacturing, enterprise integration, technology transfer, education and training assessments, quality assurance, and any other area that the Defense Department selects. The committee continues to strongly support the established precedent of making any federal government support to the NCMS part of a cost sharing arrangement with the private sector.

ALLIED COOPERATIVE RESEARCH AND DEVELOPMENT

Cooperative research and development between U.S. and allied governments is clearly in a period of consolidation. Several government-to-government projects have been canceled in the past few years. As a result, the amended budget request for the U.S. share of new projects in fiscal year 1992 is only $41 million. This amount represents the lowest funding level in the history of this six-year old program.

The committee continues to support cooperative research and development as a cost-effective option that the Defense Department should seriously consider when deciding how to develop defense equipment. For many years, the committee has recommended several management steps to strengthen the cooperative R&D process. These administrative improvements were described most recently in the committee's report on the National Defense Authorization Act for Fiscal Year 1991 (S. Rept. 101-384).

The committee urges the Department of Defense to use this period of consolidation to put cooperative research and development on a solid, sustainable footing. The statutory framework and funding levels for this acquisition approach have both been generous in the flexibility they have allowed the Defense Department. What is needed at this time to take advantage of this flexibility is a disciplined process of planning and execution within the Department of Defense.

The committee believes that the Department of Defense should use its *Critical Technologies Plan* to identify opportunities for cooperation with our allies. The 1991 plan found the NATO allies capable of important contributions in 10 of 21 critical technologies. Through the Independent European Programme Group (IEPG), the allies have themselves developed a similar plan for long-term technologies, the European Cooperation for the Long Term in Defense (EUCLID) program.

These plans can form the basis for a series of relatively small-scale cooperative activities in the early stages of the development of critical technologies. These activities could in turn spawn larger-scale cooperation in weapons system applications if they are successful.

DEFENSE WORKFORCE TRAINING PROGRAMS

Workforce training and worker skills are increasingly important to U.S. competitiveness in the global, high-technology economy. As the largest single U.S. employer that recruits and trains workers, the Defense Department has developed state-of-the-art training and educational techniques, materials, and technologies which would be of significant benefit to the private sector. However, these DOD training programs are spread across the military Services and components, and no single inventory of all available programs is known to exist.

The committee directs the Department of Defense, in consultation with the Department of Labor and the Department of Education, to prepare an inventory on DOD training and education programs that relate to workforce training issues of concern to the private sector. This inventory should, to the greatest extent possible, rely on similar efforts already performed both by the federal government and the private sector. The committee directs the Secretary of Defense to provide the results of this effort in a letter report to the Armed Services Committees of the Senate and House of Representatives no later than 180 days after enactment of this act. The committee expects the report to include the Defense Department's assessment of how these capabilities can be used by the private sector to better support its needs.

The committee applauds the progress of various organizations and institutions in addressing this serious workforce training issue. The nation is becoming aware of the paucity of individuals trained and available to work in a manufacturing environment increasingly dominated by computer driven equipment and machinery. Operators trained in the skills needed to operate these machines are critical not only to the national security but also to America's economic growth and competitiveness. The committee recommends an additional authorization of $20.0 million for the joint Service education and training system (program element 64722S) for fiscal years 1992 and 1993. This authorization is intended to permit the Defense Department to support workforce training programs that demonstrate high potential to develop new workforce training approaches and techniques.

INTEGRATED TACTICAL-STRATEGIC DATA NETWORK

Last year, Congress directed the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASD(C3I)) to implement the integrated tactical-strategic data network (ITDN) concept demonstrated in 1989 by the intelligence communications architecture (INCA) project office. The ASD(C3I) took the first step towards implementing this guidance by designating the Defense Communications Agency (DCA) as the lead agency for implementating ITDN services defense-wide. The ASD(C3I) directed that a target architecture and implementation strategy be submitted to his office within 60 days.

A year has passed, and little or no progress has been made. Direction by Congress and the ASD(C3I) is clearly not being followed. Meanwhile, the Persian Gulf war has clearly validated serious shortcomings in the ability to transfer large quantities of digital data to and from the theater and around the battlefield.

The absence of a packet-switched, data communications capability with multi-level security devices forced deployed units to send data over narrowband voice networks. Required volumes of data simply cannot be sent over these low-data-rate networks. At theater-level commands, it took months to deploy even rudimentary data-switching nodes.

This problem is intolerable, especially because of its severe effect on disseminating imagery and other vital intelligence. The Defense Department must acquire deployable, packet-switching nodes that are accessible by satellite and landline systems. Tactical forces also must have dense, packet-switched, data network capabilities with access to backbone defense data network gateways.

The ASD(C3I) is directed to submit to the congressional defense committees a defense-wide plan and budget to accomplish these objectives by March 1, 1992.

TACTICAL AIR COMMAND AND CONTROL SUPPORT FACILITY

The tactical air command and control support facility (TACCSF) is a man-in-the-loop, real-time air space management testbed located at Kirtland Air Force Base. Currently operated by the Air Force Tactical Air Warfare Center, the testbed simulates theater command and control systems.

The facility offers the capability to test new air space management equipment and procedures, including the test and simulation of theater missile defenses and civil air space management. However, TACCSF capabilities are not being fully utilized. The committee directs the Secretary of Defense to study and report to Congress on alternatives to the current operation of the testbed which would allow the facility to be funded and fully utilized by interested Services, Defense Agencies, and other federal agencies.

ARTIFICIAL BLOOD SUBSTITUTES

The committee believes that new developments in the field of hemoglobin-based red blood cell substitutes may offer substantial benefits to the military in both peacetime and combat. Cost factors and logistical problems associated with the sourcing, screening, testing, typing, cross-matching, shipping and storage of blood would be substantially reduced. The need for frequent replacement of large inventories would also be reduced or eliminated. Disruption of the civilian blood supply and other problems stemming from collecting blood during rapid mobilization could also be largely avoided. In addition, recent advancements in the area of recombinant human hemoglobin (RHH) show promise of providing a product that may offer new capabilities for far-forward casualty care as well as totally eliminating any risk associated with blood-borne infectious agents in operating room transfusions.

The committee recognizes the unique benefits to the military of rapid development of this vital technology. The committee encourages the Defense Department to provide specific assistance to accelerate product development. The Department of Defense should report its progress in supporting this technology to the Committee on Armed Services of the Senate and the House of Representatives by March 1, 1992.

MOBILE OFFSHORE BASE ANALYSIS

The committee notes that the prepositioning of equipment and materiel afloat was instrumental in deploying forces quickly in Operation Desert Shield. Prepositioning afloat will continue to be an essential component of our force projection capability in the future. In this regard, the committee has been informed of a new approach to afloat prepositioning, "mobile offshore bases" or MOBs. This approach would utilize mobile offshore platforms linked together to preposition heavy equipment and materiel in strategic locations around the world, including the Middle East.

The committee believes that this approach should be examined in the context of the Mobility Requirements Study by the Joint Chiefs of Staff. This concept should be evaluated in the overall context of forward basing and prepositioning, maritime prepositioning, and developing airlift and sealift capabilities. The committee recommends $1.0 million to evaluate the cost-effectiveness and strategic utility of this concept.

STUDY ON POTENTIAL OF NON-LETHAL FORCE

The committee understands that the Department of Defense has been evaluating the use of non-lethal systems that incapacitate or immobilize an opponent as a substitute for lethal weapons that destroy the opponent. Such non-lethal systems offer great promise in minimizing collateral damage, limiting non-combatant casualties, and avoiding environmental damage. These systems would be especially well-suited to urban warfare and unconventional conflict.

The committee believes that this concept offers substantial promise and recommends an authorization of $1.0 million to undertake a comprehensive study and evaluation of this concept. The Department is encouraged to undertake this study outside of normal Service development channels in order to promote the widest possible search of promising ideas. The study should identify existing technologies or those that could be quickly employed in a non-lethal strategy and should focus on the strategy, policy, force structure, and operational issues that would relate to a future program.

STRATEGIC DEFENSE INITIATIVE

The committee recommends a provision (sec. 211) that would establish a new national goal for defending the United States, its armed forces overseas, and its friends and allies against limited ballistic missile attacks, authorize the initial steps towards implementation of this goal, and urge the adoption of a new U.S. negotiating strategy on ballistic missile defenses.

Goal

The provision would declare that it is a goal of the United States to:

1. deploy an anti-ballistic missile system, including one or an adequate additional number of ABM sites and space-based sensors, capable of providing a highly effective defense of the

United States against limited attacks of ballistic missiles, including accidental or unauthorized launches or Third World attacks;

2. maintain strategic stability; and

3. provide highly effective theater missile defenses (TMD) to U.S. forward-deployed and expeditionary armed forces and to our friends and allies.

Implementation

To implement this goal, the provision would direct the Secretary of Defense to:

1. aggressively pursue the development of a range of advanced TMD options, with the objective of down-selecting and deploying such systems by the mid-1990s;
2. develop for deployment by fiscal year 1996 a cost-effective, operationally-effective, and ABM Treaty-compliant anti-ballistic missile system at a single site as the initial step toward deployment of the new anti-ballistic missile limited defense architecture. The treaty-compliant system to be deployed by fiscal year 1996 would most likely be located at Grand Forks Air Force Base, North Dakota, and would include:
    a. 100 ground-based interceptors, with the design to be determined by competition and down-selection for the most capable interceptor deployable by fiscal year 1996;
    b. a fixed, ground-based anti-ballistic missile battle management radar; and
    c. optimum utilization of space-based sensors, including sensors capable of cueing ground-based anti-ballistic missile interceptors and providing initial targeting vectors, and other sensor systems that also are not prohibited by the ABM Treaty.

The provision would direct the Secretary of Defense to submit to the congressional defense committees within 180 days of the enactment of this bill a plan for the deployment of TMDs and a treaty-compliant ABM system which meet the guidelines established in the provision. The committee directs that the Secretary's plan also identify any changes in the conduct of the Strategic Defense Initiative (SDI) program during fiscal year 1992, as described in the May 1991 SDIO report by the SDI Organization (SDIO), that would be required as a result of this new program guidance.

In addition to the ABM deployment track, the committee also recommends the implementation of a parallel arms control track. The provision would urge the President to pursue immediately negotiations to amend the ABM Treaty to permit completion of the planned limited defense anti-ballistic missile defense system. Specifically, the provision would urge the President to adopt a new negotiating strategy to reach agreements with the Soviet Union necessary to permit:

1. additional anti-ballistic missile sites and additional ground-based anti-ballistic missile interceptors;
2. increased utilization of space-based sensors for direct battle management;

3. clarification of what constitutes permissible development and testing of space-based missile defenses;
4. increased flexibility for technology development of advanced ballistic missile defenses; and
5. clarification of the distinctions between TMDs and ABMs, including interceptors and radars.

As deployment at the treaty-compliant, anti-ballistic missile site at Grand Forks draws near to the deployment date of fiscal year 1996, the committee believes the President and the Congress must assess the progress in the ABM Treaty amendments negotiation. If the new negotiating objectives recommended by the committee have not been achieved, the provision would specify that the President and the Congress should at that time consider the options available to the United States as now exist under the ABM Treaty. To assist in this review process, the provision would direct the President to submit to the Congress not later than May 1, 1994, an interim report on the progress of the negotiations.

Follow-on Technologies

To effectively develop technologies relevant to achieving the goal established by the provision and to provide future options for protecting the security of the United States and our allies and friends, the committee believes robust research and development funding for promising follow-on anti-ballistic missile technologies, including Brilliant Pebbles, is required. Deployment of Brilliant Pebbles is not included in the initial plan for the limited defense system architecture described in the provision. In addition, the provision would direct the Secretary of Defense to submit to the congressional defense committees a report on conceptual and burdensharing issues associated with the option of deploying space-based interceptors, including Brilliant Pebbles, for the purpose of providing global defenses against ballistic missile attacks. Not more than 50 percent of the funds authorized for the Space-Based Interceptors program element in fiscal year 1992 may be obligated for the Brilliant Pebbles program until 45 days after submission of the report.

To reflect the changes in the SDI architecture that would be required by the provision, the provision would provide that the following program elements shall be the exclusive program elements for the Strategic Defense Initiative:

1. Limited Defense System
2. Theater Missile Defenses
3. Space-Based Interceptors
4. Other Follow-On Systems
5. Research and Support Activities

The committee agrees that ground-based interceptors, such as the Ground-Based Interceptor (GBI) program and the Endoexoatmospheric Interceptor (E21) program; ground-based sensors, such as the Ground Based Terminal Radar (GBRT) program and the Ground-based Surveillance and Tracking System (GSTS); and space-based sensors, such as Brilliant Eyes, should be funded within the Limited Defense System program element. The committee further agrees that all space-based interceptor programs, including Brilliant Pebbles, should be funded within the Space-Based Interceptors program element.

Funding

The committee recommends a fiscal year 1992 funding level for SDI of $4.6 billion. Of this amount—

(A) not more than $1,550,530,000 shall be available for programs, projects, and activities within the Limited Defense System program element;

(B) not more than $857,460,000 shall be available for programs, projects, and activities within the Theater Missile Defenses program element;

(C) not more than $625,383,000 shall be available for programs, projects, and activities within the Space-Based Interceptors program element;

(D) not more than $744,609,000 shall be available for programs, projects, and activities within the Other Follow-On Systems program element; and

(E) not more than $822,018,000 shall be available for programs, projects, and activities within the Research and Support Activities program element.

Of the amount included for the Limited Defense System program element, up to $5.0 million may be obligated and expended to carry out an expeditious site-specific Environmental Impact Statement and up to $40 million may be obligated and expended to conduct refurbishment studies, site surveys, and technical assessments and analyses related to removing the Grand Forks ABM site from its deactivated status.

The committee noted and has addressed elsewhere in this report an instance in which a Defense Agency other than SDIO proposed to perform RDT&E functions directly relevant to the SDI. In order to exercise appropriate oversight, the committee intends that similar activities be conducted using funds appropriated for SDI and transferred by SDIO to such other agencies in the same manner as applies to other programs. This guidance is not intended to apply to studies and analyses of ballistic missile defenses, or to research and exploratory development of generic technologies that might, after further development, be of direct interest to SDIO.

SDI DEVELOPMENT AND TESTING RESTRICTION

Chapter 8 of the May 1991 report by the Strategic Defense Initiative Organization (SDIO), which was submitted to the Congress by Deputy Secretary of Defense Atwood on May 16, 1991, contains the following statement: "Currently, no experiment has been approved which would not fall within the categories used in Appendix D to the 1987 Report to Congress on the SDI."

At a hearing on April 11, 1991, Under Secretary of Defense for Policy Wolfowitz confirmed that there are no SDI or Tactical Missile Defense Initiative (TMDI) development or testing activities planned in fiscal year 1992, including long-lead acquisition in fiscal year 1992 of material or equipment uniquely required for such development or testing in later years, which would conflict with the agreement on the ABM compliance issue which the Congress concluded with then—National Security Adviser Frank Carlucci in 1987, as reflected in section 225 of the National Defense Authorization Act for Fiscal Years 1988 and 1989 (Public Law 100–180).

Under Secretary Wolfowitz pledged that should the administration decide that it was necessary to go beyond the traditional interpretation of the ABM Treaty in any experiment, or to procure long-lead parts that would be uniquely required for such experiments, it would consult with the Congress and request approval through normal budgetary procedures to obligate and expend funds for the experiment. Finally, Undersecretary Wolfowitz confirmed that a Presidential directive requiring that the SDI program be conducted according to the traditional interpretation was still in effect and that this compliance policy was also being applied by the administration to the TMDI.

In light of the aforementioned statement contained in Chapter 8 of the May 1991 SDIO report, as further clarified by Under Secretary Wolfowitz at the April 11 hearing, the committee recommends a provision (section 212) which would effectively extend by one year section 222 of the National Defense Authorization Act for Fiscal Year 1991. The provision would specify that funds provided to the Defense Department for fiscal year 1992 and previous years for the development or testing of ABM systems or components may not be obligated or expended unless such development and testing is consistent with the development and testing described in the May 1991 SDIO Report. The committee agrees that "consistent with the development and testing described in the May 1991 SDIO Report" means development and testing which does not involve space-based or otherwise mobile ABM systems or components.

The provision would further specify that funds provided to the Defense Department for fiscal year 1992 or prior years may not be obligated or expended for the acquisition of any material or equipment (including any long-lead materials, components, piece-parts, test equipment, or any modified space launch vehicle) required or to be used for the development or testing of ABM systems or components unless such material or equipment is required for development or testing consistent with the development and testing described in the May 1991 SDIO Report.

In recommending this provision, the committee agrees that nothing in this limitation is intended or may be construed to preclude SDIO or contractor planning activities (including studies, design activities, or computer simulations) related to any development or testing of ABM systems or components, including development and testing not described in the May 1991 SDIO Report.

In addition, the provision would specify that the Defense Department may request, through normal budgeting procedures, authority to acquire material or equipment related to ABM development or testing not described in the May 1991 SDIO report. The committee directs that such requests would have to be specifically approved by the Congress in the form either of new legislation or Congressional approval of a transfer of funds. The committee further directs that no such transfer of any amount take place under this provision without prior notification and Congressional approval through the procedures that traditionally have governed transfers.

BIOLOGICAL DEFENSE RESEARCH PROGRAM

In December 1990, the General Accounting Office (GAO) published a report on the biological defense research program (BDRP) that concluded that because of lax internal controls, the Army "unnecessarily expended funds on research and development efforts that did not address validated threats and may have duplicated research efforts of other federal agencies." The GAO determined that the BDRP was spending an inordinate portion of its research funding on biological agents that had not been identified by the Armed Forces Medical Intelligence Center (AFMIC) as validated threats.

The GAO findings were dramatically underscored during Operation Desert Shield/Desert Storm when the Army was woefully unprepared to deal with Iraq's confirmed biological warfare capability. Lacking appropriate vaccines for anthrax or botulism, the Army had to make emergency requisitions from civilian and foreign sources. Fortunately, allied air strikes against Iraqi biological warfare storage and production sites, coupled with the coalition's threat of unleashing an even more devastating conventional bombing campaign, proved sufficient to deter Iraq from using these inhumane weapons of mass destruction.

The committee does not believe, however, that the United States can necessarily conclude that U.S. armed forces will never come under biological warfare attack. Accordingly, it recommends a provision (section 227) that would prohibit the obligation or expenditure of any DOD funds for product development or for research, development, testing, or evaluation of medical countermeasures against a biowarfare threat agent not contained in the biological warfare threat list published jointly by the Defense Intelligence Agency (DIA) and AFMIC. To ensure that the vast majority of the medical component of BDRP research is concentrated on validated threats that could be confronted by U.S. armed forces within the next 10 years, the provision would require that no less than 80 percent of the medical component of BDRP funding be targeted on such threats.

The committee recognizes that because of the time frame required to produce finished intelligence, there could conceivably be some exceptional occasions when the medical component of the BDRP needed to respond to less formalized information concerning actual or potential biowarfare threats. Accordingly, the provision would permit the BDRP to conduct research, development, testing, or evaluation of medical countermeasures against a biological agent that is not contained in the joint DIA/AFMIC biowarfare threat list if such an exception is approved by the Deputy Chief of Staff of the Army for Intelligence in accordance with applicable Army regulations governing intelligence support for the medical component of the BDRP. The committee expects that approval of any such threat excursion would be rare and would require full documentation and a compelling justification.

At a June 13, 1991 hearing, the Defense Department testified that among the gaps in U.S. biological defense, it was particularly concerned with deficiencies in the area of detection and warning. The committee directs the Army, as the DOD executive agent for chemical and biological warfare, to initiate an accelerated program to develop and deploy technology to detect and identify biological agents. This program should focus on technologies for both local and remote detection and identification of biowarfare agents such as the biodetection technologies currently being explored at the Los Alamos National Laboratory. The goals of this program should be to field a biowarfare detection capability as soon as possible.

UNIVERSITY RESEARCH INITIATIVE

The committee continues to support the key role that U.S. colleges and universities play in maintaining the nation's science and technological leadership. The Defense Department's University Research Initiative (URI) program has made major contributions to the effort.

The problems that the United States faces today require that all areas of the nation's research and technology development be fully focused in the problem areas most central to national security and economic growth. The committee believes that manufacturing and industrial process development is one very important area that has not received adequate attention. Accordingly, the committee recommends that an additional $20.0 million in fiscal year 1992 and $25.0 million in fiscal year 1993 be available for university research in manufacturing technology and industrial process technology.

The URI university research initiative program (RIP) was initiated by DOD at the direction of Congress to ensure that grants awarded under this program achieved the widest possible geographic distribution, consistent with overall program goals. By Congressional direction, the RIP program now involves 15 percent of total URI funding and is restricted to institutions of higher education that received less than $3.0 million in DOD funding in recent years. In order to continue this geographic expansion of university and college involvement in the University Research Initiative program, section 228 directs that, for fiscal year 1992, not less than 17 percent of the total URI funding be directed to institutes that have received less than $4.0 million in total DOD research and development grants and contracts. The committee directs that this allocation be increased to 20 percent with a dollar limitation of $5.0 million in fiscal year 1993.

TECHNOLOGY COOPERATION WITH JAPAN

The committee has often urged the Department of Defense to cooperate with Japan in the development of technology that would benefit both countries. In its report on the National Defense Authorization Act for Fiscal Year 1991 (S. Rept. 101-384), the committee cited the findings of the 1990 Defense Department *Critical Technologies Plan* as evidence of the promising "dual-use" technology that Japan has developed. The 1991 *Critical Technologies Plan* has again confirmed Japan's standing as a technology superpower and has provided a road map for potential areas of cooperation. The plan judged Japan to be capable of major or important contributions in 11 of 21 technologies.

During the past year, the Department of Defense has made some progress in technology cooperation with Japan. Joint working groups made up of U.S. and Japanese experts have now met at least once to discuss five Japanese technologies. Although it is unclear at this time whether these discussions will result in actual technology exchanges, the committee urges the Defense Department to pursue them as quickly and as thoroughly as possible. The Department of Defense should then go on to explore additional cooperation in the critical dual-use technologies in which Japanese government laboratories and industry excel.

In the National Defense Authorization Act for Fiscal Year 1991, the committee initiated a provision (section 1454) that would set aside $10 million for technology cooperation projects with Japan. The committee recommends that this provision be renewed for fiscal year 1992.

Last year, the committee also strengthened the mechanism for identifying technology opportunities in Japan. Section 248 of the National Defense Authorization Act for Fiscal Year 1991 directed the Secretary of Defense to establish a DOD office in Japan to investigate, evaluate, and facilitate the cooperative development of technologies of interest to the Defense Department.

The Defense Department has decided to implement section 248 by operating the new office under the authority and direction of the Mutual Defense Assistance Office (MDAO) in the U.S. Embassy in Tokyo. Technical support for the DOD technology office will be provided through formal arrangements with the U.S. Army, Navy, and Air Force research offices in Japan.

The committee believes that a DOD technology office organized and operated in this way can be effective. However, its success will largely depend upon the extent to which the Service research offices actively assist the new office in investigating Japanese technology of interest to the Defense Department. With only four personnel working in the MDAO, it will have to be able to direct the Service research offices to support its technology work.

The committee will closely monitor the operation of the new DOD technology office. If the office should require additional authority or personnel, the committee will consider those changes during 1992. One potential source of more personnel would be the relatively large science and technology centers that each of the Services maintains in Japan. The DOD technology office may prove to be a better focus for U.S. defense technology efforts in Japan than these centers.

Another way in which the committee sought to strengthen the mechanism for technology cooperation with Japan was to urge the Secretary of Defense to increase the number of personnel who work in this area in the Office of the Deputy Under Secretary of Defense (International Programs). The fact that only one person in this office oversees cooperative R&D with both Japan and South Korea has hindered technology cooperation with Japan. This problem has been confirmed by U.S. government personnel in Japan, private experts in the United States, and officials in the Japanese government. The committee again strongly urges the Secretary of Defense to correct this staffing problem.

Beyond these specific administrative improvements, the committee is interested in promoting a comprehensive assessment of scientific and technological relations between the United States and Japan. Therefore, the committee directs the Secretary of Defense to commission an independent study of this subject by the National Academy of Sciences. The study should analyze strengths and weaknesses in Japanese science and technology and present a framework for pursuing U.S. interests through scientific and technological relations with Japan in the future. The study, together with comments by the Secretary of Defense, shall be submitted to the Senate and House Armed Services Committees within 18 months of the enactment of this bill.

FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDCS)

Recent History of FFRDCs

The Senate report (S. Rept. 101-521) accompanying the Department of Defense Appropriations Bill for Fiscal Year 1991 (S. 3189) criticized the substantial growth in aggregate funding at FFRDCs since fiscal year 1985, despite the downturn in defense funding since then, and called for funding reductions. Under longstanding guidelines, both the studies and analyses and the research and development categories of FFRDCs are intended to contain institutions with stable levels-of-effort from year to year; manning levels at the systems engineering FFRDCs are intended to rise and fall in rough proportion to the ebb and flow of funding for major programs at their sponsoring agencies. Despite the existence of these longstanding guidelines, manning levels at FFRDCs rose by 23 percent between fiscal year 1985 and fiscal year 1990. The committee notes that, in relative terms, two-thirds of total FFRDC manpower is in the systems engineering category, nearly one-fifth is in the R&D category (which is growing rapidly), and only one-seventh is in the highly visible studies and analysis category.

The committee supports the direction expressed in Senate Report 101-521, but notes that the Department of Defense Appropriations Act for Fiscal Year 1991 did not incorporate this approach. Instead, it reduced fiscal year 1991 funding at some FFRDCs, increased funding at others, and left the balance of the FFRDCs relatively unaffected.

This chaotic situation has been further aggravated by the persistent failure of the Defense Department to follow either congressional guidance or its own historic FFRDC guidelines for management and oversight. Although directed by the Congress to provide individual line-items for each FFRDC, the Department has ignored this guidance and elected to combine all the studies and analysis FFRDCs into a *single,* centrally managed line item, thus *eliminating* the existing line-items for most of those institutions. Moreover, the Department proposes to centrally manage this single line-item, doling out funds to sponsoring agencies from within the Office of the Under Secretary of Defense for Acquisition (USD/A). The Department did not consult or coordinate this change with any of the oversight committees. The committee finds this DOD change unacceptable. The committee disapproves of this approach and instructs the Department not to disrupt the longstanding budgetary, management, and oversight mechanisms that presently exist between each FFRDC and its sponsoring agency.

The committee rationale for its actions

The committee notes that the Department of Defense is in the early phases of a planned reduction of about 25 percent in the defense budget, a change that will call for innovative ideas for force restructuring and alternative ways to perform roles and missions. In view of this critical need for creative thinking about "downsizing" within the Department, the committee believes the role of the studies and analysis FFRDCs to provide innovative advice and counsel to their individual sponsors assumes greater importance over at least the next several years. Reductions in the near-term within this smallest FFRDC category are clearly counter-productive. The committee thus halts further reductions and applies modest additions to those studies and analysis FFRDCs that were sharply reduced in the fiscal year 1991 budget process.

The committee notes that, although defense spending peaked in 1985, the manning levels at the largest category—the systems engineering FFRDCs—have continued to rise steadily, from under 5,000 man-years in fiscal year 1985 to over 5,700 in fiscal year 1990. The committee, however, recognizes the important role of these institutions in providing technical advice and technology options to manage R&D and weapons programs within more limited resources. In view of the sustained growth in this largest FFRDC category, the committee recommends modest overall reductions within this category for both fiscal years 1992 and 1993.

The committee also notes that the systems engineering category contains that portion of the FFRDC work conducted at the Institute for Defense Analysis (IDA) which is sponsored by the Office of Operational Test and Evaluation (OT&E) and the Live Fire Test Office in the Office of the Director of Defense Research and Engineering. Since 1989, the OT&E office has been reducing its reliance for test and evaluation support on for-profit contractors, many of whom had contracts from other agencies whose weapons were being evaluated by OT&E, thus creating at least the appearance of a conflict of interest. OT&E has significantly increased its use of IDA resources since 1989. The committee applauds the OT&E approach to acquiring objective, independent expertise, free of even the appearance of conflict of interest, and directs that the Department, and in particular the USD/A, refrain from any interference in the independent operations of OT&E (to include the OT&E requirements for support from an FFRDC controlled by USD/A). The committee reminds the Department that the Director of OT&E, who has statutory responsibilities for carrying out operational test and evaluation activities, reports directly to the Secretary of Defense and the Congress.

The committee notes that the most significant rate of growth of manning has occurred in the research and development (R&D) category of FFRDCs; principally at newer FFRDCs such as the Software Engineering Institute and the newly-created Institute for Advanced Technology. The committee notes that the congressional defense committees cannot call for a return to stable manning at FFRDCs on the one hand, while also accepting the creation of new (and growing) FFRDCs. Accordingly, the committee recommends modest reductions to the growth rates of FFRDCs in the R&D category.

Committee Recommendations for FFRDC Funding

The committee's recommendations for fiscal years 1992 and 1993 are contained in the table below. The Department shall assign a separate and distinct program element number to each line in the table, and shall not hereafter aggregate these accounts. Henceforth, the IDA lines shall be treated as separate FFRDC accounts, for reporting and budgeting purposes, with sponsoring agencies as designated.

FFRDC MANPOWER CEILINGS AND FUNDING RECOMMENDATIONS

[Dollars in millions]

FFRDC	Sponsor	Manpower ceiling		Recommended funding	
		Fiscal year 1992	Fiscal year 1993	Fiscal year 1992	Fiscal year 1993
Studies and Analysis:					
Center for Naval Analysis [1]	Navy	270	270	$32.1	$33.8
Institute for Defense Analysis (IDA)	DDRE	320	320	([3])	([3])
Rand Project Air Force	USAF	150	150	25.6	26.9
National Defense Research Institute	PA&E	160	160	21.8	22.9
Arroyo Center	Army	150	150	23.8	25.0
Logistics Management Institute	P&L	140	135	([3])	([3])
Systems Engineering:					
Aerospace	USAF	2,450	2,350	([3])	([3])
MITRE C3I Division	C3I	([4])	([4])	446.0	453.0
IDA OT&E [2]	OT&E	75	80	([3])	([3])
Research and Development:					
IDA C3I	C3I	150	150	([3])	([3])
MIT Lincoln Laboratory	USAF	1,175	1,150	([3])	([3])
Software Engineering Institute	DARPA	160	150	([3])	([3])
Institute for Advanced Technology	Army	20	20	3.15	3.31

[1] Includes Marine Corps Operations Analysis Group.
[2] Includes Live Fire Test Office in DDR&E.
[3] To be reported by DOD.
[4] Not available.

The committee's recommended manpower ceilings will modestly reduce FFRDC manpower levels in fiscal years 1992 and 1993 from the peak in fiscal year 1990. The committee expects the Department of Defense to continue to monitor FFRDCs to insure that only work appropriate to FFRDCs is assigned to them.

The committee's guidance to DOD

The manpower levels for each fiscal year in the table above are to be deemed *ceilings* on the allowable level of effort at each FFRDC. The recommended funding levels for fiscal years 1992 and 1993 are estimates for those FFRDCs with existing line-items and are based on historical data available to the committee. They may not be adequate to fully fund the manpower ceilings in every case. Should the sponsoring agency require use of the full manpower ceiling but find the funding insufficient, the sponsoring agency may use appropriate reprogramming procedures. For MITRE, the ceiling shall be the funding level provided, rather than a manpower ceiling. The funding ceilings at MITRE correspond to reductions in real growth of two percent per year.

The Department shall review the accounting procedures at all FFRDCs, and shall provide guidelines for uniform definitions of manpower levels of effort, allowable expenses, and cost projections not later than March 1, 1992. These guidelines shall also include an accounting under these uniform definitions of prior year costs and manpower levels at each FFRDC for fiscal years 1985 through 1991, and projections for fiscal years 1992 and 1993.

Since the manpower levels are ceilings, no sponsoring agency need request the full ceiling amount, and each sponsor may provide additional funds during the fiscal year up to the ceiling, should unanticipated requirements arise. Manpower ceilings not used in one FFRDC line-item may not be transferred to other FFRDCs.

The Department of Defense shall provide to the congressional defense committees within 90 days of the enactment of an appropriations act pursuant to this authorization a listing by line-item and sponsoring agency, of the programs reduced to provide initial fiscal year 1992 funds to those FFRDCs which have not previously had individual, identifiable line-items, together with the estimated manpower levels that those initial funds will support. To encourage the Department to comply fully with the spirit of this guidance, the committee further provides that, if the funding so identified at any FFRDC supports less than 50 percent of the manpower ceiling authorized by the committee in the table above, the manpower ceiling at that FFRDC for fiscal years 1992 and 1993 shall be reduced to twice the level of manning supported by the funds identified in the Department's report. For fiscal year 1993 and thereafter, the Department shall request funds for all FFRDCs through these line-items.

The committee intends that these manpower ceilings remain in effect for fiscal years 1992 and 1993. The committee expects the Department of Defense to recommend, in conjunction with the defense budget request for fiscal years 1994 and 1995, new manpower ceilings for all FFRDCs, together with a detailed justification of their value to the Defense Department and to their individual sponsors. In the interim, the Department of Defense is prohibited from establishing any additional FFRDCs unless such FFRDC is authorized in law.

TITLE III—OPERATION AND MAINTENANCE

The President's amended fiscal year 1992/1993 budget request included $86,686.6 million for operation and maintenance of the armed forces and the component agencies of the Department of Defense in fiscal year 1992, and $84,422.5 million in fiscal year 1993.

For fiscal year 1992, the committee recommends authorization of $85,047.0 million for the operation and maintenance (O&M) accounts, a reduction of $1,639.6 million from the amended budget request. Of this reduction, $467.3 million represents transfers to other accounts.

For fiscal year 1993, the committee recommends authorization of $87,010.1 million.

The recommended authorization by account for fiscal years 1992 and 1993 is summarized in the following table:

	Amended FY1992 Request	Senate Change to FY92 Request	Senate FY1992 Authorized	Amended FY1993 Request	Senate Change to FY93 Request	Senate FY1993 Authorized
O&M, Army	21,886.8	-623.7	21,263.1	19,936.5	102.7	20,039.2
O&M, Navy	23,934.2	-785.9	23,148.3	23,699.8	81.3	23,781.1
O&M, Marine Corps	1,894.6	275.7	2,170.3	1,739.8	450.4	2,190.2
O&M, Air Force	20,351.9	-388.5	19,963.4	20,760.4	287.2	21,047.6
O&M, Defense Agencies	8,794.8	-159.0	8,635.8	7,583.2	1,536.6	9,119.8
Office Of The Inspector General	116.2	4.2	120.4	116.7	0.0	116.7
O&M, Army Reserve	937.2	25.9	963.1	973.1	20.4	993.5
O&M, Navy Reserve	816.1	25.4	841.5	797.0	20.0	817.0
O&M, Marine Corps Reserve	75.9	6.0	81.9	75.4	2.3	77.7
O&M, Air Force Reserve	1,075.4	5.5	1,080.9	1,232.5	31.4	1,263.9
O&M, Army National Guard	2,080.7	48.2	2,128.9	2,083.7	32.6	2,116.3
O&M, Air National Guard	2,287.8	-7.4	2,280.4	2,700.9	22.7	2,723.6
Rifle Practice, Army	5.0	0.0	5.0	5.0	0.0	5.0
Court Of Military Appeals, Defense	5.5	0.0	5.5	5.9	0.0	5.9
Environmental Restoration, Defense	1,252.9	-69.0	1,183.9	1,450.2	0.0	1,450.2
Humanitarian Assistance	13.0	0.0	13.0	13.0	0.0	13.0
Drug Interdiction	1,158.6	0.0	1,158.6	1,249.4	0.0	1,249.4
Summer Olympics	0.0	2.0	2.0	0.0	0.0	0.0
World University Games	0.0	1.0	1.0	0.0	0.0	0.0
Total Operation & Maintenance	86,686.6	-1,639.6	85,047.0	84,422.5	2,587.6	87,010.1

In reviewing the operation and maintenance accounts, the committee attempted to identify those areas of the amended budget request in which funding shortfalls could cause readiness and sustainability problems in the future. Where possible, the committee found offsets from other areas of the budget to increase funding in these areas. The committee's adjustments to the fiscal year 1992 and 1993 operation and maintenance accounts are discussed below.

FUNDING ADJUSTMENTS

Depot maintenance.—All of the Services continue to have large unfunded depot maintenance backlogs, a situation that could be exacerbated by the recent extended operations during the Persian Gulf conflict. The committee recommends an increase of $200.0 million for the military Services' depot maintenance programs in fiscal year 1992.

Real property maintenance.—Funding for real property maintenance activities continues to fall further behind annual requirements in all of the military Services. In fiscal year 1992, the Army's real property maintenance backlog increases by $1.4 billion, or 40 percent, over the fiscal year 1991 level. The committee recommends an increase of $300.0 million for real property maintenance activities in fiscal year 1992.

The amended budget request proposed to transfer funding for real property maintenance activities performed by contract from the O&M to the military construction accounts in fiscal year 1993. The committee believes that real property maintenance funding should be retained in the O&M accounts to give the local base commander maximum flexibility to carry out his responsibilities. The committee bill authorizes $1,823.0 million requested for real property maintenance in fiscal year 1993 in the O&M accounts rather than in the military construction accounts.

National Guard and Reserve strength.—The committee's actions to increase the strength of the National Guard and Reserve components above the level requested by the Department of Defense is discussed elsewhere in this report. The committee recommends an increase of $140.0 million to the amended budget request in the O&M accounts in fiscal year 1992 to support the level of National Guard and Reserve strength authorized in the bill.

Special Operations Forces.—The committee's initiative to increase the capability of special operations forces is discussed elsewhere in this report. As part of this initiative, the committee recommends an increase of $42.3 million in the operation and maintenance accounts. This increase will (1) support the operation and maintenance of the new coastal patrol boats to be delivered in fiscal year 1992 ($3.8 million); (2) support enhanced operational training for special operations forces ($12.7 million); (3) fund the accelerated relocation of the 39th Special Operations Wing in Europe ($2.6 million); (4) replace inventory shortfalls of key special operations equipment ($18.5 million); and (5) strengthen language training for special operations forces ($4.7 million).

Recruiting.—The committee recommends an increase of $18.1 million to the Navy and Marine Corps recruiting budgets to ensure that these two Services are able to maintain the high quality of new recruits that is essential to the combat readiness of today's military forces.

DOD support to the 1993 World University Games.—The committee recommends an authorization of $1.0 million in fiscal year 1992 for DOD to begin planning for support of the 1993 World University Games to be held in Buffalo, New York.

DOD support to the 1996 Summer Olympics.—The committee recommends an authorization of $2.0 million in fiscal year 1992 for DOD to begin planning for support of the 1996 Summer Olympics to be held in Atlanta, Georgia.

Increased requirements for auditors.—Enactment of the Chief Financial Officers Act of 1990 imposes additional auditing requirements on the auditing organizations of the Military Departments. The committee recommends an increase of $12.35 million to provide for additional auditors that will be needed to meet these new requirements.

Department of Defense Inspector General.—The committee recommends an increase of $4.7 million to the amended budget request in fiscal year 1992 for the Office of the DOD Inspector General (IG). This increase is necessary to cover overtime for criminal investigators, increased participation in federal task forces, and implementation of the Chief Financial Officers Act of 1990. The committee also recommends a transfer of $500,000 from the fiscal year 1992 O&M authorization request to the procurement request for the DOD IG to purchase automatic data processing equipment to support additional auditing personnel.

Civil Air Patrol.—The committee recommends an increase of $880,000 to the fiscal year 1992 amended budget request of $6.4 million for operations of the Civil Air Patrol. The committee also authorizes $1.5 million within the Drug Interdiction and Counter-Drug Activities, Defense account for the important counter-narcotics operations of the Civil Air Patrol during fiscal year 1992.

Office of Economic Adjustment.—The committee recommends an increase of $1.0 million to the amended budget request of the Office of Economic Adjustment in fiscal year 1992. This increase is to cover the costs of a grant to Nye County, Nevada authorized by section 317 of the committee bill. In addition, the committee directs that up to $100,000 of the total amount authorized for the Office of Economic Adjustment in fiscal years 1992 and 1993 may be used for planning DOD support for special events.

Foreign currency repricing.—Since submission of the amended budget request, the U.S. dollar has been increasing in value compared to various foreign currencies. The committee recommends a reduction of $796.6 million in fiscal year 1992 and $768.4 million in fiscal year 1993 to the foreign currency-related programs to reflect this improvement.

Revised purchase inflation.—The purchase deflator used to calculate inflation in the O&M accounts in the amended budget request for fiscal year 1992 appears to be overstated. The committee recommends a reduction of $105.0 million based revised inflation estimates for fiscal year 1992.

Revolving fund cash balances.—The cash balances in the DOD revolving and management accounts can be reduced, so the committee recommends a reduction of $350.0 million to the operation and maintenance accounts. This reduction should be offset by transfers to the respective accounts from the cash balances of the revolving and management funds.

Under execution of fiscal year 1991 civilian personnel program.—Civilian personnel levels in the military Services in fiscal year 1991 are running below those projected in the amended budget request. These lower personnel levels in fiscal year 1991 will result in lower than budgeted levels in fiscal year 1992. The committee recommends a reduction of $142.0 million to reflect this under execution of the fiscal year 1991 civilian personnel program.

Transfer to Defense Cooperation Account.—The fiscal year 1992 amended budget request includes authorization of $75.0 million for reconstitution of the Maritime Prepositioning Ships in the O&M, Marine Corps account, and $255.0 million in the O&M, Navy account for increased depot maintenance costs in fiscal year 1992 "as a result of increased optempo during fiscal year 1991." The committee strongly supports funding for both of these items. However, since these represent incremental costs of the Persian Gulf conflict, these items should be funded from the Defense Cooperation Account. The committee bill deletes the funding for these two items from the O&M accounts and authorizes the necessary funds to be transferred from the Defense Cooperation Account in fiscal year 1992 for these two items.

Travel.—The amended budget request included increases in the Army and Air Force for travel in fiscal year 1992. The committee recommends a reduction of $55.0 million to hold this category of O&M costs at the current fiscal year 1991 level in all Services.

Legacy Resource Management Program.—Established in the Department of Defense Appropriations Act, 1991 (Public Law 101-511), the Legacy Resource Management Program will enable the Department of Defense to identify and manage biological, geophysical, cultural, and historical resources on military installations. Because of their size and geographic distribution, military installations often harbor the last or the largest remnants of imperiled habitats. In addition, they very often contain unique and undisturbed geophysical and historic features. Early identification of these resources enables DOD to plan and carry out training and other activities to avoid damage to these resources and the need to make costly changes due to lack of information. The committee commends the work accomplished by the Office of the Deputy Assistant Secretary of Defense for Environment and the military Services in the initial implementation phase of the program. The committee recommends an authorization of $25.0 million in fiscal year 1992 for this program, an increase of $15.0 million over the amended budget request.

Army Environmental Policy Institute.—The Army has established the Army Environmental Policy Institute (AEPI) to help it take a more pro-active stance in environmental management issues, such as solid waste management, hazardous waste management, and pollution prevention. In carrying out its mission, the AEPI has worked closely with historically Black colleges and universities. The committee supports the continued work of the AEPI to assist the Army in reducing the amount of waste generated by Army activities, which in turn will reduce the Army's long-term waste management costs. The committee also encourages the AEPI to work closely with the other Services. The committee recommends authorization of $4.5 million for AEPI for fiscal year 1992, an increase of $1.5 million above the amended budget request.

Environmental restoration and compliance.—Costs associated with environmental compliance in the Department of Defense have increased as a result of more stringent environmental laws and development of aggressive environmental compliance auditing programs. The Defense Department has an increasing number of environmental compliance violations outstanding, some of which have been unresolved for over two years. Additional funding is needed to resolve these outstanding violations so that DOD can achieve its goal of zero environmental compliance violations. The committee recommends an increase of $45.0 million to the military Services' budgets in fiscal year 1992 to increase environmental compliance activities.

Defense Environmental Restoration Account.—Of the $1,252.9 million requested for authorization by DOD for environmental restoration activities in fiscal year 1992, $69.0 million was included for clean-up activities at bases that have now been recommended for closure by the Base Closure Commission and the President. The committee recommends transfer of these funds to the 1990 Base Closure account to insure that all funds associated with the environmental clean-up of these bases are included in a single account. This transfer, coupled with an additional increase of $128.0 million to the 1990 Base Closure account and an increase of $41.0 million to the 1988 Base Closure account, will fully fund the current estimate for all environmental clean-up activities during fiscal year 1992 at bases proposed for closure.

U.S. Naval Observatory Earth Orbit Activities.—The committee recommends authorization of $1.6 million for operation and support of U.S. Naval Observatory earth orbit activities at Green Bank, West Virginia, in fiscal year 1992, an increase of $900,000 above the amended budget request.

On-Site Inspection Agency (OSIA).—The On-Site Inspection Agency was created in 1988 within the Department of Defense initially to implement the on-site inspection provisions of the INF Treaty. The OSIA mission has now been expanded to include inspection, escort, management, and other activities under the Threshold Test Ban and Peaceful Nuclear Explosions Treaties (TTBT and PNET) which entered into force in December 1990, as well as the pending U.S.-Soviet Chemical Weapons Bilateral Agreement, the Conventional Forces in Europe (CFE) Treaty, and the Strategic Arms Reduction Treaty (START).

The President established OSIA as an agency of the Department of Defense, reporting to the Under Secretary of Defense (Acquisition), in recognition of the fact that DOD would provide substantially all of its administrative and logistical support, as well as operational guidance and integration of OSIA activities with already existing functions of the Department of Defense. For example, military personnel are made available as necessary to OSIA for unique technical support, including linguistic experts, weapons specialists, and foreign area specialists. The cost of military manpower assigned to OSIA activities was $39.9 million in fiscal year 1991 and is projected to increase to $42.3 million in fiscal year 1992.

When OSIA was first established, its initial funding was authorized by the committee through the reprogramming of funds from other defense accounts. Since then, the OSIA budget has been included in the National Defense (050) function of the federal budget request, and the committee has authorized funding for the OSIA within the defense authorization bill. Annual appropriations for OSIA are made through the Defense Subcommittees of the Senate and House Committees on Appropriations. The Armed Services Committees and the Defense Appropriations Subcommittees of the Senate and House have approved additional DOD requests for reprogramming of funds from other defense accounts to OSIA and will continue to consider such reprogramming requests, as appropriate.

In establishing the OSIA, the President also created a mechanism for ensuring that coordinated policy guidance is provided to OSIA. The OSIA Director, who is appointed by the Secretary of Defense with the concurrence of the Secretary of State and the approval of the President, is currently an Air Force major general. The principal deputy is a senior officer from the Arms Control and Disarmament Agency, a second deputy is from the Department of State, and a third deputy is from the Federal Bureau of Investigations; these deputies ensure direct liaison with their respective agencies. OSIA participates fully in the interagency arms control process and is given policy guidance from the Secretary of Defense through the DOD Executive Committee. This arrangement effectively ensures that OSIA is fully aware of policies developed by interagency consensus as well as ensures that OSIA interests, concerns, and expertise are available to the interagency process.

In the National Defense Authorization Act for Fiscal Year 1990, Congress endorsed the establishment of OSIA within the Department of Defense as having "ensure[d] that sensitive national security assets are protected and that obligations of the United States under [the INF] treaty are fulfilled in an efficient and cost-effective manner." The committee believes that the effective and efficient performance of OSIA's duties continues to be best served by maintaining its well-established relationship within the Department of Defense and the arrangements by which the agency has received policy guidance since its creation. The committee will continue to review the activities and budget of OSIA as a logical component of its oversight responsibilities for the Department of Defense and national security matters in general.

The amended budget request included $192.4 million for fiscal year 1992 and $170.7 million for fiscal year 1993 for OSIA. Of these amounts, activities to be funded in the O&M accounts totaled $182.9 million for fiscal year 1992 and $163.4 million for fiscal year 1993. The balance of the request for OSIA is for the procurement of mission-essential equipment.

Due to reduction of inspection requirements under CFE and changes in the projected dates of entry into force of both the CFE and START treaties, the committee recommends a reduction in OSIA funding in the Operations and Maintenance, Defense Agencies account of $28.3 million for fiscal year 1992 and $12.6 million for fiscal year 1993. The committee also recommends an increase in OSIA funding in the Procurement, Defense Agencies account of $18.1 million for fiscal year 1992 and $8.0 million for fiscal year 1993 for procurement of other capital equipment for the agency. However, recognizing that progress in ongoing arms control negotiations could soon result in additional requirements for OSIA, the committee will consider requests by the Department of Defense for additional funding during the fiscal year, as appropriate.

Maritime prepositioning.—The committee notes that the Navy's maritime prepositioning ship (MPS) program worked very well in delivering Marine Corps combat power during the recent deployment to the Persian Gulf. These ships delivered the first heavy U.S. ground forces to the theater, a fact that served as a deterrent to continued Iraqi aggression. The equipment and supplies on these ships was in excellent working order and thus was "ready to fight" upon arrival. This is a testament to the high priority and emphasis the Marine Corps places on these capabilities.

The committee believes that this program should continue to receive the highest priority and that the Marine Corps should be designated as the executive agent within the Department of Defense for DOD maritime prepositioning programs. The committee bill transfers authorization of $342.0 million in fiscal year 1992 and $343.5 million in fiscal year 1993 from the O&M Navy account, in which these funds were requested, to the O&M Marine Corps account. This will ensure that these programs continue to receive the management priority they deserve and that any program increases are properly focused.

Classified programs.—The committee recommends reductions totaling $220.6 million in fiscal year 1992 and $25.0 million in fiscal year 1993 for classified programs which are discussed in the classified annex to this report.

SUMMARY OF ADJUSTMENTS

The following tables summarize the committee's recommended adjustments to each of the operation and maintenance accounts for fiscal years 1992 and 1993.

OPERATION AND MAINTENANCE
Fiscal Year 1992
Adjustments by Account
(Dollars in Thousands)

	ARMY	NAVY	MARINE CORPS	AIR FORCE	DEFENSE AGENCIES	INSPECTOR GENERAL	ARMY RESERVE	NAVY RESERVE	MARINE CORPS RESERVE	AIR FORCE RESERVE	ARMY NATIONAL GUARD	AIR NATIONAL GUARD	RIFLE PRACTICE ARMY	COURT OF MILITARY APPEALS	ENVIRONMENT RESTORATION DEFENSE	DRUG INTERDICTION DEFENSE	HUMANITARIAN ASSISTANCE	1996 SUMMER OLYMPICS	1993 WORLD UNIVERSITY GAMES	TOTAL
BUDGET REQUEST	21,886,000	23,934,700	1,906,000	20,351,000	8,794,800	116,200	937,200	816,100	75,000	1,075,000	2,080,700	2,287,800	5,000	5,500	1,252,900	1,150,000	13,000			86,000,000
FUNDING ADJUSTMENTS																				
Foreign currency repricing	(519,200)	(50,000)	(8,000)	(179,200)	(33,400)															-790,000
Revised inflation estimate	(28,800)	(28,200)	(2,400)	(29,100)	(11,700)		(1,200)	(900)		(200)	(1,500)	(1,000)								-105,000
Revolving fund balances	(100,000)	(100,000)		(100,000)	(50,000)															-360,000
FY1991 civilian personnel program	(30,000)	(31,000)	(5,000)	(76,000)																-142,000
Transfer- Defense Cooperation Account		(255,000)	(75,000)																	-330,000
Travel	(15,000)			(40,000)																-55,000
Reserve Component strength							31,000	30,000	6,000	8,000	65,000									140,000
Depot maintenance	40,000	75,000	10,000	75,000																200,000
Real property maintenance	125,000	100,000	15,000	60,000																300,000
Special operations forces					42,300															42,300
Environmental compliance	15,000	15,000		15,000																45,000
Recruiting		14,100	4,000																	18,100
Office of Economic Adjustment					1,000															1,000
Chief Financial Officer Act of 1990	3,500	1,850		7,000																12,350
Navy earth orbit activities		900																		900
Army Environmental Policy Institute	1,500																			1,500
1996 Summer Olympics																		2,000		2,000
1993 World University Games																			1,000	1,000
DOD IG-increased workload						4,700														4,700
DOD IG-transfer to procurement						(900)														-900
Civil Air Patrol				800																800
Legacy Resource Management Program					15,000															15,000
On-Site Inspection Agency					(20,300)															-20,300
Classified programs	(48,300)	(22,400)		(47,000)	(102,300)															-220,000
CHAMPUS	23,400	26,300		21,300																71,000
FUNDING TRANSFERS																				
Pentagon Reservation improvements	25,600	8,000		18,000	28,500															80,100
DBOF-Milcon Capital Budget	(74,700)	(194,200)	(6,000)	(60,200)	(100)		(2,200)	(3,500)		(1,500)	(5,000)	(4,000)								-352,700
DBOF-technical corrections	(50,700)	(6,000)	(1,300)	(54,000)			(1,700)	(700)		(800)	(10,300)	(2,400)								-126,300
Executive Agent-Maritime Prepositioning		(342,000)	342,000																	0
Environmental cleanup - base closures															(69,000)					-69,000
	21,253,300	23,140,350	2,179,300	19,983,300	8,635,000	120,000	963,100	841,000	81,000	1,080,900	2,128,900	2,280,400	5,000	5,500	1,183,900	1,150,000	13,000	2,000	1,000	85,047,030

OPERATION AND MAINTENANCE
Fiscal Year 1993
Adjustments by Account
(Dollars in Thousands)

	ARMY	NAVY	MARINE CORPS	AIR FORCE	DEFENSE AGENCIES	INSPECTOR GENERAL	ARMY RESERVE	NAVY RESERVE	MARINE CORPS RESERVE	AIR FORCE RESERVE	ARMY NATIONAL GUARD	AIR NATIONAL GUARD	RIFLE PRACTICE ARMY	U.S. COURT OF MILITARY APPEALS	ENVIRONMENT RESTORATION DEFENSE	DRUG INTERDICTION DEFENSE	HUMANITARIAN ASSISTANCE	TOTAL
BUDGET REQUEST	19,936,500	23,699,000	1,739,000	20,760,400	7,583,200	116,700	973,100	797,000	75,400	1,232,500	2,083,700	2,700,900	5,000	5,900	1,480,200	1,249,400	13,000	84,422,500
FUNDING ADJUSTMENTS-																		NA
Foreign currency repricing	(487,700)	(47,600)	(4,300)	(184,200)	(44,600)													-768,400
On-Site Inspection Agency					(12,600)													-12,600
Classified programs				(25,000)														-25,000
CHAMPUS	25,000	28,200		22,800														76,000
																		NA
																		NA
																		NA
FUNDING TRANSFERS																		NA
Pentagon Reservation improvements	20,200	7,600		14,600	20,900													63,300
DBOF-Milcon capital budget	(6,000)	(14,900)	(600)	(4,800)			(200)	(300)		(300)	(400)	(100)						-27,600
DBOF-Direct fund DCMC and DCAA					1,535,000													1,535,000
DBOF-Technical correction	(33,000)	(1,000)	(700)	(29,700)			(1,200)			(300)	(8,200)	(1,300)						-75,400
Executive Agent-Maritime Prepo		(343,000)	343,000															0
Real property maintenance transfer	585,000	452,000	113,000	493,500	37,900		21,800	20,250	2,250	32,000	41,200	24,100						1,823,000
																		NA
																		NA
																		NA
																		NA
TOTAL	20,039,200	23,781,100	2,190,200	21,047,600	9,119,800	116,700	993,500	816,950	77,600	1,263,900	2,116,300	2,723,600	5,000	5,900	1,480,200	1,249,400	13,000	87,010,800

RAPID ACQUISITION OF MANUFACTURED PARTS

The Department of the Navy has made progress in the rapid acquisition of manufactured parts (RAMP) program and is the DOD leader in flexible computer integrated manufacturing (FCIM) technology. The RAMP technology is utilized in a variety of Navy depot applications, such as disassembly, inspection, fabrication, repair, overhaul, assembly, prototyping, and test operations.

The committee directs the Secretary of the Navy to evaluate all Navy depots to determine where RAMP technology could be applied and to cooperate with other Services in examining the applicability of this technology to other areas of the Department of Defense. The Secretary of the Navy should report to the Committees on Armed Services of the Senate and the House of Representatives on the results of this effort within 120 days after enactment of this legislation.

SHIPYARD MODERNIZATION

The committee recognizes the contributions made by the naval shipyards to our nation's defense. A decline in workload for all our naval shipyards is already apparent and will become more evident in the next few years. Despite this decline in workload, naval shipyards must retain industrial capabilities and skills, particularly nuclear skills, to repair and modernize increasingly complex fleet assets.

The committee is aware that the Navy plans to conduct the initial refueling of an SSN-688 class submarine at the Charleston Naval Shipyard in fiscal year 1994. The committee believes it is critical to national defense that the refuelings of the SSN-688 at the Charleston Naval Shipyard should be accomplished in a safe and operationally sound manner.

The committee requests that the Navy begin design and procurement of the necessary equipment to ensure the refueling can begin in fiscal year 1994 as currently programmed.

AIRCRAFT PAINT STRIPPING STUDY

The committee directs the Secretary of the Air Force to study the efficacy and environmental waste reductions potential of various paint stripping equipment technologies. The technologies in the study should include, but not be limited to, turbine wheel plastic media dispensing systems, and hose and nozzle plastic media dispensing systems.

The study should evaluate the potential savings in hazardous waste generation and media procurement of high efficiency plastic media recycling. The report should also analyze the quality control and surface damage values of media size grading and cleaning systems, and a dense particle separator.

The Secretary of the Air Force should submit a report on the results of this study to the Committees on Armed Services of the Senate and House of Representatives within 120 days of the enactment of this legislation.

SOLID WASTE DISPOSAL

The Department of Defense, like many communities, has a shortage of landfills for disposal of solid waste. The committee encourages the Department of Defense to explore alternative means of solid waste disposal and to develop integrated waste management plans for each DOD facility that encourage source reduction and increase recycling to achieve Environmental Protection Agency goals.

The committee also encourages the Department of Defense to explore the use of cooperative arrangements and to coordinate its solid waste disposal plans, including recycling efforts, with affected local communities. The Department is directed to prepare a report on the feasibility of incentive funding for recycling and utilizing various solid waste disposal alternatives, including the possibility of utilizing cooperative arrangements, such as those suggested by the Northwest Municipal League for implementation at Great Lakes Naval Training Center and Glenview Naval Air Station. The report should also examine alternatives to land filling yard wastes. The report shall be submitted to the Committees on Armed Services of the Senate and the House of Representatives no later than April 1, 1992.

INDEMNITY

In the conference report (H. Rept. 101-923) accompanying the National Defense Authorization Act for Fiscal Year 1991, the Congress directed the Department of Defense to prepare a report, in conjunction with environmental restoration and response action contractors, on the issue of contractor liability. In testimony before this committee and the House Armed Services Committee, environmental restoration and response action contractors stated that they were reluctant to bid on Department of Defense environmental restoration contracts due to the unavailability of insurance and the concern that they would be held liable for claims and damages as if they were the owner of the property.

The committee is very concerned about the potential unavailability of the contractors essential to the DOD environmental restoration program. Initially, DOD and the contractor and insurance communities worked very closely to identify the specific problems and potential solutions. In the end, however, DOD was three months late in submitting a report that was not at all helpful to the committees in resolving this issue.

The committee is very disappointed in the content of the report submitted by DOD. The report failed to respond to or to address the issue of contractor liability and indemnity. Instead, the report said that the issue requires "substantial further analysis."

The committee is concerned that the quality of the DOD environmental restoration program may suffer substantially through its ultimate inability to obtain qualified, responsible contractors. Furthermore, the committee is concerned that DOD will avoid the issue until there is a crisis situation in the program. The committee will continue to follow the situation closely, and will hold hearings on this issue in the future.

REVOLVING AND MANAGEMENT FUNDS

Revolving and management, or working-capital, funds in the Department of Defense provide goods and services to activities in the Defense Department and other agencies of the federal government and recover the costs of providing these goods and services through the prices charged to their customers.

The amended budget request includes the creation of three new revolving funds in the Department of Defense.

DEFENSE BUSINESS OPERATIONS FUND

The Defense Department proposes to establish the Defense Business Operations Fund (DBOF) in fiscal year 1992. In fiscal year 1992, the DBOF will consolidate the activities previously funded in the existing stock and industrial funds into a single fund. The activities include: depot maintenance, supply operations, transportation, certain research and development activities, data processing, and printing and publication. In addition, the Defense Finance and Accounting Service (DFAS), the Defense Commissary Agency (DeCA), and three Defense Logistics Agency (DLA) functions (the Defense Technical Information Center (DTIC), the Defense Reutilization and Marketing Service (DRMS), and the Defense Industrial Plant Equipment Center (DIPEC)) are included in the DBOF in fiscal year 1992.

In fiscal year 1993, the amended budget request expands the DBOF to cover the Defense Contract Management Command and the Defense Contract Audit Agency.

The business areas included in the DBOF would provide $77 billion in support services in fiscal year 1992 and $76 billion in fiscal year 1993. In fiscal year 1993, DOD budgeted $500 million in savings based on anticipated efficiencies achievable under the DBOF concept.

The principal goal of the DBOF is to identify all of the costs of providing goods and services through DOD revolving and management funds. By clearly and completely identifying these support costs, DOD managers will be better able to control and reduce them as the size of the military force structure is reduced. Officials from the Office of the Secretary of Defense (OSD) have testified that the military Services and Defense Agencies that currently manage activities consolidated in the DBOF will continue to have all management responsibilities. Policy oversight and management of the cash balance of the DBOF, however, will be centralized in OSD.

The most significant change caused by the creation of the DBOF in fiscal year 1992 is the introduction of capital budgeting principles. Beginning in fiscal year 1992, the approved costs for each DBOF activity will include capital requirements for equipment and construction. The costs of capital investments will be reflected in the operating costs of the DBOF and the prices charged to customers through the use of depreciation. Funding for major construction requirements in the DBOF capital budget under the DOD proposal would continue to require specific authorization, like all other military construction projects, before work could begin.

The committee believes that the creation of the DBOF could improve the management and increase the efficiency of support functions throughout the Department of Defense. With certain changes, the committee endorses the creation of this new fund in fiscal year 1992.

Section 2208 of title 10, United States Code, authorizes the Secretary of Defense to establish working-capital funds in the Department of Defense. The Department submitted a legislative proposal in the amended budget request that would require the Secretary to establish a Defense Business Operations Fund. However, the DBOF will operate under many of the policies and procedures currently in place for defense working capital funds. The committee believes that section 2208 as currently written provides sufficient authority for the Secretary of Defense to establish the DBOF; therefore, it does not recommend any changes to this authority.

The committee approves the concept of capital budgeting for equipment in the DBOF, but recommends disapproval of funding military construction projects through the DBOF in fiscal years 1992 and 1993. While the administration's proposal for authorizing construction projects for DBOF functions provided Congressional oversight of these capital investments, it did not, in the committee's view, provide a realistic framework for modernizing the physical plant of these activities. In order to insure that facility modernization is viewed as a Service-wide issue and that each installation can fairly compete for scarce funds, the committee considered the administration's DBOF-funded construction within the overall context of military construction, and transferred the authorization of these funds from the accounts in which they were requested to the appropriate military construction accounts.

In fiscal year 1993, the amended budget request proposed to expand the DBOF to cover the activities of two key oversight activities within the Defense Department: the Defense Contract Audit Agency and the Defense Contract Management Command. The committee has reservations about funding these oversight activities through a customer relationship between the oversight activities and the activities which DCAA and DCMC would oversee. The committee recommends against funding these two oversight activities through the DBOF in fiscal year 1993, and has made the necessary adjustments to authorize funding for these two activities through the operation and maintenance accounts.

During the committee's consideration of the amended budget request, the Department advised the committee of several technical corrections to the funding necessary to carry out the DBOF. These technical corrections involve the proper alignment of funding authorization to implement the capital budget concept for equipment, and the restoration of $34.4 million in fiscal year 1992 and $36.4 million in fiscal year 1993 inadvertently omitted from the R&D customer accounts to fund the Defense Technical Information Center (DTIC) and the Information Analysis Centers (IACs). The committee bill includes these technical corrections requested by the Department.

The amended budget request includes authorization of direct appropriations to the DBOF of $3,400.2 million in fiscal year 1992 and $2,273.2 million in fiscal year 1993. These funds are to cover those costs which cannot yet be charged to customers; to fund the operating expenses associated with the Defense Commissary Agency which by law are not recoverable from customers; and to provide material for the nation's war reserves. The committee bill authorizes $3,400.2 million as requested in fiscal year 1992. In fiscal year 1993, the committee bill authorizes $1,145.3 million. The authorization of $1,127.9 million requested in fiscal year 1993 in the DBOF for the Defense Contract Management Command and the Defense Contract Audit Agency has been transferred to the Operation and Maintenance, Defense Agency account.

PENTAGON RESERVATION MAINTENANCE FUND

Section 2804 of the National Defense Authorization Act for Fiscal Year 1991 transferred the control of the Pentagon Reservation from the General Services Administration to the Department of Defense. As part of that transfer, a special account known as the Pentagon Reservation Maintenance Revolving Fund was established. The conferees intended that this fund be used to finance, among other functions, the maintenance, construction, renovation, and facilities services of the Pentagon Reservation. The Secretary of Defense was authorized to establish rates and collect charges from using agencies for the services financed by this fund.

Notwithstanding this guidance, the administration requested authorization of $80.1 million in fiscal year 1992 in the military construction accounts for the construction of a new heating and refrigeration plant and a classified waste incinerator for the Pentagon Reservation. In fiscal year 1993, the administration requested authorization of $63.3 million as a direct capitalization to the fund.

The committee supports these construction projects as the initial steps in a multi-year renovation of the Pentagon facility. However, based upon last year's legislation, the committee believes that these projects are more appropriately funded through user charges to the Military Departments. The operations and maintenance accounts of the military Services and the Defense Agencies have been increased to allow for payment of adjusted user fees to the Pentagon Reservation Maintenance Fund for activities located within the Pentagon.

LEASE REPLACEMENT FUND

The amended budget request included a proposal to authorize a new Lease Replacement Fund which would permit the transfer of funds into this revolving account for the purpose of relocating defense activities out of commercial lease facilities into government-owned facilities. The fund would be used to repair, renovate, or construct government facilities for this purpose. Funds appropriated for the costs of such commercial leases would be deposited into the fund to partially absorb the capital expenses of relocating functions to government-owned facilities.

The committee supports the administration's goal of reducing dependence upon commercial leases in instances in which functions can be relocated in government-owned facilities without harming their missions. However, the proposed Lease Replacement Fund is cumbersome and inappropriately bypasses the normal Congressional review of construction projects.

As a step towards reducing the Defense Department's dependence upon commercial leases, the committee would consider transferring the funding of such leases into the military construction authorization. This would parallel the current arrangement of authorizing the leasing of family housing. This approach would permit greater visibility of the scope and cost of current commercial leases, and provide a framework through which trade-offs could be made between lease expenses and capitalization of government facilities.

The committee believes that an important element in addressing the scope and cost of commercial leases is the potential acquisition of real property assets of the Resolution Trust Corporation (RTC). In selected instances, these properties may represent the most economic means of meeting the facility needs of Department activities which cannot or need not be functionally located on military installations. The requirement to screen the assets of the RTC is addressed elsewhere in the committee bill.

The committee urges the Department to evaluate alternative approaches to minimizing the use of commercial leases and looks forward to working with the Department in this important area.

LEGISLATIVE PROVISIONS

ARMED FORCES RETIREMENT HOMES

Section 303 of the committee bill would authorize appropriations of $57.7 million for the operation of the Armed Forces Retirement Homes, including the United States Soldiers' and Airmen's Home and the Naval Home, in fiscal year 1992.

HUMANITARIAN ASSISTANCE

Section 304 would authorize $13.0 million in fiscal years 1992 and 1993 for transportation of humanitarian aid to Afghan refugees and to the non-communist resistance at or near the border between Thailand and Cambodia.

SUPPORT FOR 1993 WORLD UNIVERSITY GAMES

Section 305 of the committee bill would authorize DOD to provide logistical support and personnel services to the 1993 World University Games to be held in Buffalo, New York. This provision would also authorize $1.0 million in fiscal year 1992 for DOD to initiate this support with the World University Games and with state and local law enforcement officials. The committee expects the Department to include future costs for DOD support for these Games in its annual budget request.

SUPPORT FOR 1996 SUMMER OLYMPICS

Section 306 of the committee bill would authorize DOD to provide logistical support and personnel services to the 1996 Summer Olympics to be held in Atlanta, Georgia. This provision would also authorize $2.0 million in fiscal year 1992 for DOD to initiate this support with the Atlanta Committee for the Olympic Games and with state and local law enforcement officials. The committee expects the Department to include future costs for DOD support for these Games in its annual budget request.

LIMITATIONS ON OBLIGATIONS AGAINST STOCK FUNDS

Section 311 of the committee bill would prohibit the Secretary of Defense from incurring obligations against Department of Defense stock funds during fiscal year 1992, except for obligations for fuel, subsistence and commissary items, retail operations, repair of equipment, and the cost of operations, in excess of 80 percent of the sales from such stock funds during the fiscal year. This provision also would allow the Secretary of Defense to waive this 80 percent obligation gap if he determines that such action is essential to the national security of the United States. This provision is intended to continue the reduction in the size of inventories in the DOD supply system.

CONTRACTS FOR EQUIPMENT MAINTENANCE AND OPERATION

Section 312 of the committee bill would authorize the use of operation and maintenance funds for payments under equipment operation and equipment maintenance contracts for twelve months at any time during a fiscal year.

DEPOT MAINTENANCE WORKLOAD COMPETITIONS

Section 313 of the committee bill would amend section 922(a) of the National Defense Authorization Act for Fiscal Year 1991 to extend the depot maintenance workload competition pilot program through fiscal year 1992. This section would also repeal section 2464 of title 10, United States Code, which currently prohibits the Army and the Air Force from competing depot maintenance tasks between the Army and the Air Force or between the Army or the Air Force and a private contractor.

REPEAL OF AUTHORITY OF BASE COMMANDERS OVER CONTRACTING FOR COMMERCIAL ACTIVITIES

Section 314 of the committee bill would repeal section 2468 of title 10, United States Code, which provides certain authority to base commanders over contracting for commercial activities.

EXTENSION OF AUTHORIZATION FOR AVIATION DEPOTS AND NAVAL SHIPYARDS TO ENGAGE IN DEFENSE-RELATED PRODUCTION AND SERVICES

Section 315 of the committee bill would extend, for one year, until the end of fiscal year 1992, the authority provided by section 1425 of the National Defense Authorization Act for Fiscal Year 1991, for Naval shipyards and Army, Naval and Air Force aviation depots to bid on defense-related production and services.

PROHIBITION ON THE USE OF FUNDING FOR SECURITY AND PERFORMANCE BONDS

Section 316 of the committee bill would prohibit the use of appropriated funds to obtain surety or performance bonds to guarantee the performance of the United States to fulfill a legal requirement.

IMPACT ASSISTANCE FOR NYE COUNTY, NEVADA

Section 317 of the committee bill would authorize the Secretary of Defense to provide up to $1.0 million in impact assistance to Nye County, Nevada. This sparsely populated community is the location of several Department of Defense and Department of Energy activities. One such site, the Tonopah Research Center, has been the location of the 37th Tactical Fighter Wing. Until last year, this wing's mission of operating the F-117 aircraft was classified.

In the face of increasing requirements for public school education generated primarily by the dependents of Department of Defense and Department of Energy civilian employees and contractors, the county initiated a program to expand and modernize its public school system. However, shortly after the declassification of the 37th Tactical Fighter Wing mission, the Air Force announced its intention to relocate the unit from the Tonopah Research Center to Holloman Air Force Base, New Mexico. This reduction in Air Force activity at Tonopah will result in about 358 students leaving the public school system, representing an 11 percent reduction in enrollment. More importantly, the county's overall population is estimated to decline by 8 percent from the federal actions.

In light of the unusual circumstance facing Nye County due in part to the classified nature of federal activities in that area, the committee believes that the county faces an excessive financial burden and that the assistance authorized by this section through the Office of Economic Adjustment is appropriate.

PREVENTION OF THE TRANSPORTATION OF BROWN TREE SNAKES ON AIRCRAFT AND VESSELS OF THE DEPARTMENT OF DEFENSE

Three years ago, the Defense Department began a surveillance and quarantine program to prevent the brown tree snake from entering Hawaii from Guam and other Pacific islands. The Military Customs Inspections Program and the Armed Forces Pest Management Board have been actively working on the brown tree snake problem. Section 318 would reinforce the DOD efforts in this area and direct the Secretary of Defense to take actions to prevent the inadvertent introduction of brown tree snakes from Guam to Hawaii in Department of Defense aircraft and vessels.

DONATION OF CERTAIN SCRAP METAL TO THE MEMORIAL FUND FOR DISASTER RELIEF

Section 319 of the committee bill would authorize the Secretary of Defense to waive the provisions of the Federal Property and Administrative Services Act of 1941 (40 U.S.C. 471 et seq.) to donate no more than 15 tons of cruise missile scrap generated by the INF Treaty destruction requirements to The Memorial Fund for Disaster Relief. This scrap will be used to make commemorative items whose sale will benefit charitable disaster relief efforts. There will be no cost to the U.S. government for this effort beyond the donation of this scrap material at the location where it is currently stored.

SURETY BONDS

The Department of Defense relies heavily on private construction contractors to carry out its environmental restoration program. These contractors are virtually unable to buy statutorily required surety bonds except in support of contracts for environmental restoration activity at superfund sites. A majority of the DOD sites in need of environmental restoration are non-superfund sites. Under the Miller Act (40 U.S.C. 270a–270d), all federal construction contractors are required to obtain a surety bond to guarantee the contractor's performance under the contract, and to pay the costs necessary to complete the contract if the contractor defaults on his obligations.

Companies that provide these bonds are unsure of the extent of their liability and thus are not providing bonds for non-superfund sites. These companies are worried that their liability will extend beyond the obligation to complete the contract, for which they have agreed to be liable, to include a wide variety of third party claims, such as claims for damages to property, personal injury claims, and other unknown environmental restoration or other costs. Without the ability to buy bonds, construction contractors will not bid on DOD contracts at non-superfund sites.

Section 320 of the committee bill would provide that if surety bonds are required for contracts under the DOD environmental restoration program, they shall be issued in accordance with the Miller Act. This section limits the obligation of the surety bond provider to the costs necessary to complete the contract, according to the contract plans and specifications, up to the sum of the bond. In addition, it provides that only the obligee, the person to whom the bond would be paid, can sue the bonding company.

This provision also makes clear that the surety company shall not be liable to either the obligee or to third parties for loss or liability arising from personal injury or for property damages. Third parties remain able to sue the contractor directly as well as other liable parties, including the Department of Defense, but they may not sue the bonding company.

This provision will provide the necessary assurances to permit bonding companies to once again write surety bonds necessary to allow construction contractors to bid on DOD environmental restoration contracts.

CIVILIAN END STRENGTH CEILINGS

Section 321 of the committee bill would repeal the requirement for the Department of Defense to manage the civilian personnel inventory by end strengths. The committee notes that the Department of Defense has budgeted for the following civilian strength levels in fiscal year 1992 and 1993:

Civilian End-Strengths

	Fiscal year 1991 civilian strengths	Fiscal year 1992 civilian strengths	Fiscal year 1993 civilian strengths
Army	363,122	329,340	314,743
Navy	329,848	311,264	303,827
Air Force	239,023	222,897	220,617
Defense Agencies	119,727	139,358	136,535
Total DOD	1,051,720	1,002,859	975,722

TITLE IV—MILITARY PERSONNEL AUTHORIZATIONS

PART A—ACTIVE FORCES

ACTIVE DUTY END STRENGTHS

The committee recommends a provision (sec. 401) that would authorize the active duty end strengths for each of the military Services at the levels requested by the administration for fiscal years 1992 and 1993.

Active Duty End Strengths

	Fiscal year 1991 planned	Fiscal year 1992 request and recommendation	Fiscal year 1993 request and recommendation
Army	710,000	660,200	618,200
Navy	573,086	551,400	536,000
Marine Corps	195,672	188,000	182,200
Air Force	514,000	486,800	458,100
Totals	1,992,758	1,886,400	1,794,500

The active duty end strengths requested by the Department of Defense, and recommended by the committee, place the military Services on a glide path to achieving the long-term plan of active duty end strengths adopted by the committee and enacted by the Congress in the National Defense Authorization Act for Fiscal Year 1991. The committee notes that the military Services have each used the authority provided in the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 (Public Law 102-25) to exceed the authorized end strengths for fiscal year 1991 by modest amounts because of Operation Desert Shield/Desert Storm requirements. In approving the fiscal year 1992 and 1993 active duty end strength levels, the committee relied on testimony by Department of Defense witnesses that despite the use of this authority in fiscal year 1991, the lower levels requested for fiscal years 1992 and 1993 are prudent and manageable.

Last year, the committee adopted, and the Congress enacted, a uniform strength reduction process that required that reductions be made in the levels of accessions, the first term element of the personnel inventory, and the retirement eligible element of the personnel inventory before reductions are made in the career element of the personnel inventory. The committee has received certification from the Secretary of Defense that this process has been implemented.

The committee also recommended, and the Congress enacted, involuntary separation pay and transitions benefits to provide a safety net for involuntarily separated personnel. In its report on the National Defense Authorization Act for Fiscal Year 1991 (S. Rept. 101-384), the committee expressed its disappointment that the Department of Defense, despite urging by the committee, was unable to propose such a package. The committee is even more disappointed this year at the lethargy of the Department of Defense in implementing the benefits that were authorized by Congress.

The committee further notes that it urged the Department of Defense to develop a program for the vesting of military personnel into the retirement system along the lines of the Employee Retirement Income Security Act (ERISA). Instead of such a proposal, the Department of Defense developed a voluntary separation incentive that it pressed the committee to adopt. The proposal was received by the committee only days before its consideration of this bill. Therefore, the committee could not give proper consideration to the proposal. However, on brief examination, the committee found the proposal to fall far short in terms of the basic theory, concepts, and principles of military compensation delineated in the Department's own *Military Compensation Background Papers*.

In view of the continued absence of leadership by the Department of Defense in these matters, section 401 would prohibit, in fiscal year 1992, the involuntary separation of certain career personnel who are not eligible to retire. This provision would also authorize the Secretary of Defense to waive the active duty end strengths for fiscal year 1992, to the extent he determines such waivers are necessary to avoid personnel imbalances that may be caused by the prohibition on involuntary separations if such imbalances would impair the combat readiness of a particular military Service.

The committee reiterates its interest in receiving a plan for vesting military personnel in the military retirement system from the Department of Defense. In this regard, the committee directs the Secretary of Defense to submit such a plan, along with draft legislation, to the Committees on Armed Services of the Senate and House of Representatives by January 15, 1992.

Finally, the committee is concerned about the potential effect that future involuntary separations may have on women and minorities. Therefore, the committee directs the Secretary of Defense to exercise careful control over the involuntary separation programs of the military Services, and to submit a report to the Committees on Armed Services of the Senate and House of Representatives by December 31, 1991, that explains policy and oversight procedures on this matter.

REDUCTION IN THE AUTHORIZED END STRENGTH FOR THE NUMBER OF MILITARY PERSONNEL IN EUROPE

In the National Defense Authorization Act for Fiscal Year 1991, Congress directed a reduction in U.S. military personnel permanently stationed ashore in Europe from 311,855 to 261,855, effective September 30, 1991. This provision permitted the President to waive this reduction if he notified the Congress that the national security interests of the United States required such action.

Due to the personnel turbulence caused by the deployment of U.S. forces from Europe to the Middle East during Operation

Desert Shield/Desert Storm, President Bush invoked this authority on May 29, 1991. As a result of the waiver, the congressionally-mandated European troop strength (ETS) ceiling for fiscal year 1991 reverted to 311,855.

The committee recommends a provision (section 402) that would lower the ETS ceiling to 235,700, effective September 30, 1992. The new ETS ceiling will require a reduction in fiscal year 1992 of over 50,000 personnel from the level the U.S. European Command estimates will be in Europe as of October 1, 1991. This provision permits the President to waive the new ETS ceiling of 235,700 if he certifies to the Congress that the national security interests of the United States require a waiver. Should the President exercise this authority, the ETS ceiling of 261,855 that was enacted in the National Defense Authorization Act for Fiscal Year 1991 would apply.

REDUCTION IN THE NUMBER OF AUTHORIZED AIR FORCE COLONELS

The committee recommends a provision (sec. 403) that would reduce by 250 the number of Air Force colonels authorized under 10 U.S.C. 523.

The committee recommended this same provision in the National Defense Authorization Act for Fiscal Year 1991. The provision was revised in the Senate-House conference on the Act so that the reduction was not made permanent. Instead, it was applied only to fiscal year 1991 so that the Air Force and the Department of Defense would have a final opportunity to convince the committee that the reduction should not be made permanent. The Air Force and the Department of Defense have not succeeded in convincing the committee that the reduction should not be made permanent.

Part B—Reserve Forces

SELECTED RESERVE END STRENGTHS

The committee recommends a provision (sec. 411) that would authorize the Selected Reserve end strengths for each of the Reserve components for fiscal years 1992 and 1993.

Selected Reserve End Strengths

Component	FY1991 Planned	FY1992 Request	FY1993 Request	FY1992 Recommendation	FY1993 Recommendation
Army National Guard	457,300	410,900	366,300	443,380	425,450
Diff		-46,400	-44,600	-13,920	-17,930
Army Reserve	318,700	282,700	254,500	307,900	296,230
Diff		36,000	-28,200	-10,800	-11,670
Naval Reserve	153,400	134,600	127,100	145,880	141,545
Diff		-18,800	-7,500	- 7,520	- 4,335
Marine Corps Reserve	43,900	40,900	38,900	43,100	42,230
Diff		- 3,000	- 2,000	- 800	- 870
Air National Guard	117,035	118,100	119,400	118,100	119,400
Diff		+ 1,065	+ 1,300	+ 1,065	+ 1,300
Air Force Reserve	85,591	81,200	82,400	82,400	82,400
Diff		- 4,391	+ 1,200	- 3,191	
Coast Guard Reserve	12,700	15,150	15,150	15,150	15,150
Diff		+ 2,450		+ 2,450	
Totals	1,188,626	1,083,550	1,003,750	1,155,910	1,122,405
		-105,076	- 79,800	- 32,716	- 33,505

The committee approves substantially smaller reductions in Selected Reserve end strengths than proposed by the administration. The Department of Defense recommended a reduction of 105,076 in fiscal year 1992, and an additional reduction of 79,800 in fiscal year 1993.

The committee continues to be concerned about the lack of analytical justification for the large reductions that the Department of Defense has proposed in Selected Reserve end strengths. This same concern, last year, prompted the committee to recommend, and the Congress to enact, provisions in the National Defense Authorization Act for Fiscal Year 1991 that froze Selected Reserve end strength and force structure in fiscal year 1991 at fiscal year 1990 levels.

In its report on the National Defense Authorization Act for Fiscal Year 1991 (S. Rept. 101-384), the committee indicated that it expected to carefully review the force structure and force mix of the military Services in the Total Force Policy Study that was to be submitted to the Senate and House of Representatives by December 31, 1990. Future actions by the committee would take the results of the study into consideration.

The committee has since received and reviewed the study and finds that the results of the study fall far short of its expectations. The committee has reiterated for over two years to senior Defense Department leaders the importance of the Total Force Policy Study to the committee's deliberations. The Department apparently ignored the law and decided to submit a study in which the conclusions were "directed" rather than objective. Instead of providing definitive principles or force structure and force mix alternatives for the committee's consideration, the study very superficially dismisses the basic underpinning of the Total Force Policy which is as stated in testimony by the Assistant Secretary of Defense for Force Management and Personnel:

> "It is DOD policy to place maximum reliance on Guard and Reserve units and manpower. We use active units and manpower to support scheduled overseas deployments or sea duty, training requirements, and to support the rotation base. Above that level, we plan to support military contingencies with Guard and Reserve units and manpower when they can be available and ready within planned deployment schedules on a cost effective basis."

There is no evidence in the Total Force Policy Report or in any of the testimony or supporting budget documents that the committee received this year that this basic principle was followed in developing the Total Force manpower and force structure plans of the Army, Navy, and Marine Corps. The committee is also disturbed by Department of Defense actions and comments which imply a fundamental change in the concept of reliance on the National Guard and Reserve that proved so successful in Operation Desert Shield/Desert Storm. The Department apparently wants to rely less on the National Guard and Reserve, and instead develop force packages, plans, and concepts that envision a "go it alone" active component. The committee addresses elsewhere in this report the value of the citizen-soldier concept to American support for our military and national will in crisis situations. For these reasons, the committee could not responsibly approve the requested reductions in the Reserve components of these Services.

On the other hand, the committee notes and approves of the direction the Air Force has taken to place more reliance on its Reserve components. This direction is consistent with the basic principle of the Total Force Policy, and with one of the five key elements of a new military strategy recommended by the committee last year: greater utilization of the Reserves.

The Selected Reserve end strengths recommended by the committee do take into account the Reserve component "tail" associated with reductions in the active components, but goes no further, because as noted in testimony by the Assistant Secretary of Defense for Reserve Affairs:

> "The Nation has invested a great deal in the creation of this Reserve force. It should not be unthinkingly dismembered or relegated to a secondary role that will be unattractive to volunteer Reservists who have no obligation to serve at all. It should never be forgotten that with an All Volunteer Force, it is much easier to rebuild Active units with full-time personnel than Reserve units with part-time personnel."

The committee agrees with this observation.

The committee continues to seek rational force structure and force mix plans from the Department of Defense that it can review to establish fiscal year 1995 Selected Reserve end strength targets on the same basis that it did for the active components of each Service. The committee believes that this can and should be done; however, the committee's efforts have been frustrated because it has not received force structure and force mix plans that it can review analytically.

In this regard, testimony from Defense Department witnesses indicated that the Selected Reserve end strengths in the amended budget request for fiscal years 1992 and 1993 were not developed on the basis of force structure, but on a "share the pain" budget approach. The Reserve components were given end strengths to achieve based on dollar targets, and were told to pull out force structure and units accordingly. This approach leads to incomprehensible results.

For example, the Navy has proposed to deactivate two Navy Reserve minesweeping squadrons to fit within its budget-driven Selected Reserve end strength. This is completely at odds with the damaging and embarrassing problems that mines caused the Navy in the Persian Gulf war. Two ships were damaged, one extensively, by mines. It took the Navy nearly two weeks to clear the mines so that one of the battleships could get close enough to Iraq to use its 16-inch guns. Further, General Schwarzkopf testified that he could not risk an amphibious landing by the Marine Corps because of the lack of minesweeping in the Navy. Yet, in order to achieve an end strength that is purely budget-driven, the Navy wants to cut its minesweeping capability. This does not make any sense, and the committee recommends a provision elsewhere in this act that would require the Navy to keep its reserve minesweepers.

The situation is just as chaotic and uncoordinated in the Marine Corps Reserve. During Operation Desert Shield/Desert Storm, the Marine Corps activated 55 percent of the Marine Corps Reserve. Yet, Marine Corps Selected Reserve strength plans call for a 21 percent reduction in Marine Selected Reserve strength. This would require the Marine Corps to make cuts in force structure that have not yet been defined. One cut that has been proposed is the deactivation of a tank unit that fought with distinction in the Persian Gulf. Another cut would be to tactical aviation units in the Marine Corps Reserve, an action that is exactly the opposite of that in the Air Force. In this regard, the committee notes that the Reserves excel in tactical air missions, and that this employment of the Reserves is cost-effective and combat efficient. The planned action by the Marine Corps makes no sense.

The situation is similar in the Army. For example, the Army plans to significantly reduce combat support and combat service support units in the Reserves and retain these units in the active Army. This would increase the "tooth to tail" ratio between the active and Reserve components. The committee disagrees with the need to reverse the "tooth to tail" ratio in the Army. By all accounts, the Persian Gulf conflict demonstrated the readiness and mission effectiveness of the Reserve combat support and combat service support elements that the President activated. There is no indication that future contingencies cannot be met by the same application of the successfully demonstrated Total Force Policy. The Army's plan to reverse the "tooth to tail" ratio would cost the Army at least $370 million more per year than retaining equivalent capability in the Reserve Components, and makes no sense.

These examples are but some of the many chaotic and uncoordinated actions that the Reserve components would have to take if the Selected Reserve end strengths proposed by the Department of Defense were to be approved. Therefore, the committee urges the Department of Defense to critically reevaluate its Selected Reserve end strength plans, especially with regard to the implications of the force structure reductions the proposed end strengths would require for long-term combat effectiveness.

The committee notes that the Reserve components can be called upon to perform many additional missions as the active components are reduced in size. In establishing the Reserve component levels, the committee expects the Department of Defense to consider, at the minimum:

Army

- Assigning combat and combat service support missions to the Reserve components except for those assignments that would clearly impair combat effectiveness.
- Assigning combat units to the Reserve components that cannot be moved by air and sealift within the first 60 days of a mobilization.
- Assigning additional tactical aviation missions to the Reserve components similar to the direction the Air Force is taking.
- Assigning the support aviation missions, such as for personnel and logistics, to the Reserve components.

Navy

- Retaining and improving minesweeping missions in the Naval Reserve.
- Retaining and adding P–3 land-based antisubmarine warfare maritime patrol squadrons in the Naval Reserve.
- Assigning the land based aerial tanker mission to the Naval Reserve.
- Establishing medical units to man the hospital ships USNS Confort and Mercy.

Marine Corps

- Retaining and enhancing Marine tactical air missions in the Marine Corps Reserve.
- Retaining and enhancing combat missions assigned to the Marine Corps Reserve to offset planned reductions in active component capability.

In implementing the Selected Reserve end strengths recommended in section 411, the committee directs the Department of Defense, to the maximum extent possible, to avoid disproportionate reductions in any state or region. The committee also expects that no substantive realignments of Reserve component missions to the active components will take place without approval of the committee. In this regard, the committee directs the Secretary of Defense to submit a report to the Committees on Armed Services of the Senate and House of Representatives by February 15, 1992 on the units that will be inactivated because of the reduced Selected Reserve end strengths for fiscal years 1992 and 1993, and any plans, including supporting justification, for the realignment of missions from the Reserve components to the active components.

RESERVE FULL-TIME SUPPORT END STRENGTHS

The committee recommends a provision (sec. 412) that would authorize Reserve full-time support end strengths for each of the Reserve components for fiscal years 1992 and 1993.

Selected Reserve Full-Time End Strengths

Component	FY1991 Planned	FY1992 Request	FY1993 Request	FY1992 Recommendation	FY1993 Recommendation
Army National Guard	26,199	23,341	21,580	25,270	24,889
Diff		- 2,858	- 1,761	- 929	- 381
Army Reserve	13,344	12,683	12,003	12,815	12,673
Diff		- 661	- 680	- 529	- 142
Naval Reserve	22,997	22,045	21,113	22,520	22,045
Diff		- 952	- 932	- 477	- 475
Marine Corps Reserve	2,401	2,170	2,130	2,345	2,310
Diff		- 231	- 40	- 56	- 35
Air National Guard	8,468	9,081	9,072	9,081	9,072
Diff		+ 613	- 9	+ 613	- 9
Air Force Reserve	655	643	618	643	618
Diff		- 12	- 25	- 12	- 25
Totals	74,064	69,963	66,516	72,674	71,607
		- 4,101	- 3,447	- 1,390	- 1,067

The committee's recommendation is consistent with the Selected Reserve end strengths recommended in section 411 for each of the Reserve components.

This provision would also modify section 412 of the National Defense Authorization Act for Fiscal Year 1991 to defer for one year the implementation of the reduction in Reserve full-time support end strengths specified for the Army Reserve and the Army National Guard for fiscal years 1992 through 1997.

ASSIGNMENT OF ACTIVE COMPONENT ARMY OFFICERS IN THE ARMY NATIONAL GUARD

The committee recommends a provision that would require the Army to assign 1,300 active component officers to the Army National Guard to assist in organizing, administering, recruiting, instructing, or training combat units of the Army National Guard. These officers would be in addition to the officer strengths planned by the Army for fiscal years 1992 and 1993.

The committee notes that the Army National Guard is the largest of the Reserve components in terms of Selected Reserve strengths. Yet, the Army National Guard has the fewest active component personnel assigned to it of all of the Reserve components. Specifically, about 550 active component personnel are assigned to the Army National Guard. In comparison, about 5,000 active component personnel are assigned to the Marine Corps Reserve, the smallest of the Reserve components.

The committee believes that the small number of active component personnel assigned to the Army National Guard contributed to the problems the Army encountered in the call-up of the three Army National Guard round-out brigades for the Persian Gulf conflict. Unless active component personnel have greater opportunity to work with the National Guard units to gain firsthand knowledge of their capabilities and shortcomings, they cannot be expected to develop the kind of confidence and respect essential to a mutually supportive relationship.

The provision recommended by the committee is a first step toward strengthening a weak link between the active Army and the Army National Guard. In this regard, the committee expects the Army to work with the National Guard Bureau to design and implement a program to assign top quality active component Army officers to combat units in the Army National Guard. This program should try to develop greater long-term cohesion and confidence between the active Army and the Army National Guard. The committee stresses that this provision is only a pilot effort.

ACTIVE DUTY RESERVE SUPPORT GRADE CEILINGS

The committee recommends a provision (sec. 414) that would authorize the active duty reserve support grade ceilings for each military Service for fiscal years 1992 and 1993.

Active Duty Reserve Support Grade Ceilings for Fiscal Years 1992 and 1993

Grades	Army	Navy	Air Force	Marine Corps
E–9	569	202	279	14
E–8	2,585	429	800	74
O–4	3,219	1,071	575	110
O–5	1,524	520	595	75
O–6	372	188	227	25

PART C—MILITARY TRAINING STUDENT LOADS

AUTHORIZATION OF MILITARY TRAINING STUDENT LOADS

The committee recommends a provision (sec. 421) that would authorize the military training student loads for each military Service and Reserve component for fiscal years 1992 and 1993.

Military Training Student Loads

Service/Component	Fiscal year 1992 recommendation	Fiscal year 1993 recommendation
Army	66,525	65,430
Navy	59,675	58,720
Marine Corps	20,880	20,545
Air Force	26,880	26,450
Army National Guard	16,611	16,345
Army Reserve	15,337	15,090
Naval Reserve	3,112	3,060
Marine Corps Reserve	3,520	3,465
Air National Guard	2,765	2,720
Air Force Reserve	1,628	1,600
Total	216,933	213,425

ASSIGNMENT OF ROLES AND MISSIONS UNDER THE DEFENSE DEPARTMENT'S BASE FORCE CONCEPT

The committee is concerned with the apparent direction the Department of Defense is taking in realigning roles and missions within and among the military Services under its base force concept. For example, the Army is planning to retain combat support and combat service support missions in the active Army that could be assigned to the Reserve components.

According to information available to the committee, 69 units totalling 14,000 personnel are involved in this plan to keep combat support and combat service support units in the active Army instead of inactivating them and relying on the Reserve components for such capability. These units include transportation, chemical, engineer, ordnance, quartermaster, military police, logistics headquarters, medical, personnel service support, field artillery, air defense artillery, signal corps, military intelligence, and aviation functions.

The committee understands that the purpose of this plan is to restructure a corps of up to five divisions capable of deploying two heavy and one light division with sufficient combat support and combat service support assets to sustain the force for 30 days without immediate, major reliance on Reserve component assistance. This corps would be the assigned ground component in the contingency force element of the Department's base force plan.

The committee disagrees with the need to reverse the "tooth to tail" ratio between the active and Reserve components in the Army by unnecessarily retaining combat support and combat service support missions in the active component that have been performed very well by the Reserve components. By all accounts, the Persian Gulf conflict demonstrated the readiness and mission effectiveness of the combat support and combat service support elements of the Reserve components that the President called up. There is no indication that future contingencies cannot be met by the same application of the successfully demonstrated Total Force Policy. Therefore, the committee sees no readiness need for the Army's plans.

Also, as a matter of principle, the committee believes the Department of Defense should reassess the composition of the contingency element of its base force plan. The committee notes that no Marine Corps units are assigned to the contingency element. This is inconsistent with the expeditionary mission of the Marine Corps.

When diplomacy is unsuccessful in settling aggression, an increasing order of military pressure is brought to bear. The general pattern starts with a projection of military power, such as with a carrier battle group or deployment of airpower. The next level of intervention would involve expeditionary ground forces, currently a Marine Corps contingency role. This level signals increased resolve, but not extended commitment. Finally, if this level does not resolve the contingency, the Army and Air Force would be called upon for heavy, extended commitment. In this context, the assignment of an Army corps to the contingency force when Marine forces would be more appropriate does not make good strategic or resources sense.

The committee urges the Secretary of Defense to consider carefully the committee's views on this matter, and to provide to the committee an analysis of force structure and force mix options, to include the Department's recommendations, on the employment of forces in the Department's base force concept. The committee expects such an analysis to be provided when the amended budget request for fiscal year 1993 is submitted.

TITLE V—MILITARY PERSONNEL POLICY

PART A—GENERAL MATTERS

INITIAL APPOINTMENT OF COMMISSIONED OFFICERS

The committee recommends a provision (sec. 501) that would require all commissioned officers to be initially appointed as reserve officers regardless of commissioning source.

The committee recommended, and the Congress subsequently enacted, a provision in the National Defense Authorization Act for Fiscal Year 1991 that required the Secretary of Defense to submit a report to the committee on the advantages, disadvantages, and desirability of initially appointing all persons as Reserve commissioned officers of the military Services. The committee took this action because it believed that all commissioned officers should be initially appointed as reserve officers as a matter of equity. Before moving to require such appointments, the committee wanted the Department of Defense to have the opportunity to respond to the committee's intent. The committee has received and reviewed the Department's report. The report does not convincingly challenge the committee's recommendation.

The committee believes that all officers, regardless of their source of commission, should compete for regular commissions on the basis of their demonstrated performance and potential. Such competition is healthy and consistent with the principle of equal opportunity which allows the best officers to enter the regular component.

TRANSITION PERIOD FOR OFFICERS IN THE THREE- AND FOUR-STAR GRADES AWAITING RETIREMENT

The committee recommends a provision (sec. 502) that would reduce the period that officers in the temporary three- or four-star grades can continue to hold the grades in a transition state while awaiting retirement from 90 days to 30 days

The committee makes this recommendation because the Department of Defense has abused the liberal 90-day transition period. For example, one instance is described in the committee's report on the retirement of General Michael J. Dugan, United States Air Force (Executive Report 100–35, October 27, 1990). The committee believes the 30-day transition period it recommends is more consistent with the number of days of ordinary leave accrued by military personnel annually.

SELECTIVE EARLY RETIREMENT FLEXIBILITY

The committee recommends a provision (sec. 503) that would authorize the Department of Defense to selectively retire officers in the O–4 and O–3 grades.

This provision would broaden the existing authority that allows DOD to selectively retire officers in the O–6 and O–5 grades. It would help the military Services avoid the involuntary separation of career officers who are not eligible to retire over the next few years. This expanded authority is temporary and will only apply through fiscal year 1995.

WAIVER OF LIMITATION ON THE ASSIGNMENT OF FULL-TIME RESERVE PERSONNEL TO ROTC DUTY

The committee recommends a provision (sec. 504) that would authorize the Secretaries of the Military Departments to waive the requirement in section 559 of the National Defense Authorization Act for Fiscal Year 1991 that all full-time reserve personnel be removed from ROTC duty by September 30, 1991, where the removal of such an individual would cause a financial hardship on the individual.

REQUIRE SENATE CONFIRMATION OF THE RETIREMENT OF THE CHIEF OF NAVAL OPERATIONS AND THE COMMANDANT OF THE MARINE CORPS

The committee recommends a provision (sec. 505) that would modify sections 5034 and 5043 of title 10, United States Code, to require Senate confirmation of the retirement of the Chief of Naval Operations and the Commandant of the Marine Corps.

REPEAL OF REQUIREMENT FOR AN ENLISTED NOMINEE TO THE NAVAL ACADEMY TO HAVE SERVED AT LEAST ONE YEAR ON THE DATE OF ENTRANCE TO THE NAVAL ACADEMY

The committee recommends a provision (sec. 506) that would amend 10 U.S.C. 6958(c) to eliminate the requirement that an enlisted nominee to the Naval Academy must have served at least one year as an enlisted member on the date of entrance to the Naval Academy. The amendment would make the Naval Academy practice consistent with that of the other military Service academies that have no such service requirement for their enlisted nominees.

ATHLETIC PROGRAMS AT THE MILITARY SERVICE ACADEMIES

The committee recommends a provision (sec. 507) that would require the Secretary of Defense to establish an independent board to examine annually the athletic programs at the military Services academies. Areas to be examined would include, but not be limited to, academic integrity, the complete range of financial matters, and the equality of support for athletes in non-revenue and women's sports, with the overall purpose of exploring ways in which the academies can provide a model for civilian institutions through a commitment to the student-athlete.

The committee believes that the military Service academies serve as excellent role models for civilian colleges and universities struggling with the proper place of athletics in higher education. In March of this year, the Knight Foundation Commission on Intercollegiate Athletics issued a report, "Keeping Faith with the Student-Athlete," that examined abuses in college sports and proposed certain reforms. The committee believes that the military Service academies are well placed to provide national leadership on this issue and to share their approach with civilian institutions that are grappling with the need for reform.

The board should heavily draw on, but not be limited by, the recommendations of the Knight Report. The committee in no way intends for this board to infringe on the purview of the existing Boards of Visitors. Instead, it would independently assess all three athletic programs in the context of the ongoing national debate over the appropriate role of athletics in higher education. The committee believes this board will help ensure that the academies maintain the commitment to excellence that exists today and will provide a forum for the exchange of ideas between the academies and their civilian counterparts.

The Secretary of Defense should appoint as chairman a nationally respected individual who has served in public leadership roles and possesses extensive knowledge of military service and higher education. The Superintendents of the three academies should be members of the board.

ACADEMIC DEAN AND PROVOST AT THE NAVAL ACADEMY

The committee recommends a provision (sec. 508) that would establish the position of Academic Dean and Provost at the Naval Academy, and establish procedures for filling the position.

Last year, the committee suggested that the Secretary of the Navy establish a body of civilian faculty members to be consulted before the election or reappointment of an individual to be Academic Dean and Provost at the Naval Academy. The Navy has not developed such a process, and the committee remains concerned that the civilian faculty is not afforded an appropriate role in these decisions. The committee believes this provision will bring Naval Academy procedures in line with generally accepted practices in the academic community as set forth by the American Association of University Professors in its "Statement on Government of Colleges and Universities." This approach is also consistent with that used by the Naval Postgraduate School when selecting an Academic Dean (10 U.S.C. 7043(a)).

AUTHORITY TO WAIVE MAXIMUM AGE LIMITS FOR ADMISSION TO THE MILITARY SERVICE ACADEMIES

The committee recommends a provision (sec. 509) that would authorize the Secretaries of the Military Departments to waive the maximum age limits prescribed in sections 4346(a), 6958(a)(1), and 9346(a) of title 10, United States Code, for personnel who lost eligibility for admission to the military Service academies on the basis of age due to service in the Persian Gulf area of operations during Operation Desert Shield/Desert Storm.

EXTENSIONS OF CERTAIN MILITARY PERSONNEL MANAGEMENT AUTHORITIES

The committee recommends a provision (sec. 510) that would extend the expiration dates of certain military personnel management authorities as indicated:

a. the expiration date of the authority to not count constructive service credit for computation of a reserve officer's mandatory retirement date from September 30, 1992 to September 30, 1995;

b. the expiration date of the authority to permit the appointment of certain medical officers in the O-3 grade, notwithstanding other provisions of law, from September 30, 1992 to September 30, 1995;

c. the expiration date of the authority to permit the promotion of reserve officers serving on active duty, but not on the active duty list, who would otherwise have been promoted had they not been on active duty, from September 30, 1992 to September 30, 1995; and

d. the expiration date of the authority provided under 10 U.S.C. 2172(d) to repay education loans for certain health professionals who serve in the Selected Reserve from September 30, 1992 to September 30, 1995.

PERMANENT AUTHORITY FOR PROMOTION OF CERTAIN NAVY LIEUTENANTS

The committee recommends a provision (sec. 511) that would make permanent the temporary authority for the temporary promotion of certain Navy lieutenants which expires on September 30, 1992.

INTEGRITY OF THE PROMOTION SELECTION BOARD PROCESS

The promotion of military officers through the grade of major general and rear admiral relies on a merit-based system, the centerpiece of which is the selection board process. The integrity and fairness of this process traditionally have been major concerns of the Committee on Armed Services. The committee has acted through legislation, review of nominations, and oversight to ensure that the procedures used for selection boards are fair to the officer corps and are designed and conducted so as to select the best qualified officers for promotion.

The relationship between the integrity of the selection process and the integrity of the officer corps recently was underscored by General Gordon R. Sullivan, Chief of Staff of the Army, in testimony before the committee:

> There is a direct link between the integrity of the selection board process and the integrity of our officer corps. The link lies in the confidence our officer corps has in the objectivity and professional ethic of the board. Our selections must be fair, impartial and based upon demonstrated potential instead of subjective criteria, and they must be seen as such by our officer corps.

In 1987, the Armed Services Committee conducted an inquiry into irregularities associated with the 1987 Marine Corps major general promotion list. One of the key problems arising out of the 1987 inquiry involved verbal communications about specific candidates by senior officials to the President of the Selection Board.

In a letter to the committee dated July 7, 1987, former Secretary of Defense Weinberger assured the committee that he had taken vigorous action to prevent recurrence of the problems associated with the Marine Corps major generals board. This included issuance of a directive on June 3, 1987 requiring the Military Departments to issue written regulations specifically to ensure the integrity of the promotion process by regulating the flow of information to a selection board.

During the past year, the committee has reviewed a number of nominations involving substantial deviations from the requirement of the DOD Directive. The committee's review of these matters is ongoing, and a report on the specific instances will be issued when the committee's review is completed.

Although inquiries with respect to specific nominations are ongoing, the committee has determined that there are significant systemic problems, including delays and deficiencies in the issuance of implementing guidance, particularly on the part of the Air Force.

The failure of a Military Department to implement a DOD Directive on a timely basis is inexcusable in any case. When it involves a directive that the Secretary has issued to address problems of abuse in the promotion selection process, the failure is intolerable.

The failure to implement applicable laws and regulations undermines the integrity of the selection board process. The committee recommends a provision that would establish a statutory requirement for regulations governing the flow of information to selection boards. This provision would establish the following statutory requirements to ensure the independence of selection boards and to eliminate improper communications with, and improper pressure on, promotion selection boards. The legislation would establish the following specific statutory requirements:

(1) The Secretary of Defense must prescribe uniform regulations governing information furnished to selection boards. The committee intends that the Secretary include in such regulations a provision making it clear that violations of the regulation by military personnel would constitute offenses under the Uniform Code of Military Justice, and that violations by civilians could result in appropriate administrative and disciplinary sanctions.

(2) Any communication to the selection board, including any member of the board, must be in writing, furnished to all board members, and made a part of the selection board's record.

All verbal communications to members of the board, including pre-board briefings by the senior leadership and post-board briefings by the members prior to signing the report, would be prohibited. The prohibition includes all communications, regardless of whether the communication results from an inquiry made by a member of the board or whether the communication was initiated by a person outside the board. The only exception would be purely administrative communications from the staff assigned to assist the board members in their administrative functions.

(3) Information provided to the selection board about any eligible officer must be drawn from the material that is available to that officer as part of the officer's official military personnel file, or under procedures authorizing eligible officers to provide information to the selection board.

Under most circumstances, it is inappropriate to provide a selection board with information other than that in the individual's military personnel file. The committee recognizes, however, that there are instances in which it would be appropriate for the Secretary of Defense to authorize a board to be provided with information outside the normal military personnel file (e.g., significant substantiated favorable or unfavorable information). The legislation makes it clear that such information may be provided to the board only to the extent that: (1) the Secretary of Defense authorizes consideration of such information under uniform standards and procedures; (2) the Service Secretary has reviewed the information in accordance with the standards and procedures prescribed by the Secretary of Defense; (3) the Service Secretary has determined that such material consists of substantiated, relevant information that reasonably could have a material effect on the deliberations of the selection board; and (4) the affected officer has been provided with notice that the information will be submitted to the board and an opportunity to submit comments on that information to the board.

The legislation does not authorize the use of "priority lists" or other compilations of opinions designed to provide the board with the views of commanders or other senior officials on the relative merits of the eligible officers. The appropriate place for documenting opinion about an officer's potential for advancement is through the officer evaluation report process or other customary procedures for placing such information in an officer's official military personnel file.

(4) Eligible officers must be provided with notice of the information about them that will be considered by the board and must have a reasonable opportunity to submit comments to the board about that information.

(5) The recommendations of a selection board may not be disclosed to anyone outside the board (other than administrative personnel assigned to assist the board) until the members have completed and signed their final report.

(6) Improper influence on the board would be prohibited, and violation of the regulations implementing this section would constitute a criminal violation of the Uniform Code of Military Justice. If the senior leadership of a Service disagrees with the selections recommended by the board, the leadership's recourse is not to discuss the matter with the members of the board, but to use the statutory procedure for recommending that the President not approve the list (in whole or in part).

(7) The current authority for use of screening procedures for selection to flag and general officer positions would be significantly narrowed. The committee has serious questions about the desirability of using screening procedures to limit the number of eligible officers considered by a board, but believes that a residual, restructured authority can be retained in the event that the Secretary of Defense determines that use of such a procedure is warranted.

A screening process could not be used to preclude any eligible officer from consideration for flag and general officer positions unless approved by the Secretary of Defense for a particular selection board. Any such screening must be performed by a pre-selection board, using uniform standards and procedures prescribed by the

Secretary of Defense, which must use protections for controlling the flow of information similar to those that apply to regular selection boards. A person who has not been previously considered by at least two selection boards for the grade in question could not be eliminated by a pre-selection board from consideration by a regular selection board.

(8) If a Service Secretary or other official responsible for making recommendations on the results of a selection board transmits information as part of or in support of a recommendation concerning a particular selectee, and the information was not considered by the selection board, the officer concerned must receive notice and an opportunity to comment on the new information before that official transmits the recommendation.

REQUIREMENT FOR STUDY ON THE MANAGEMENT OF THE RESERVE COMPONENTS

The committee recommends a provision (sec. 513) that would require the Secretary of Defense to submit a report to the Committees on Armed Services of the Senate and House of Representatives on the organization and management of Reserve component functions at the Department of Defense and Service headquarters levels by December 31, 1992.

The committee directs that the report also address actions taken by the Secretary of Defense to improve the oversight and responsiveness of these functions. For example, the committee has received complaints from Marine Corps reservists about the lack of responsiveness in the Marine Corps to personnel, training, and other matters that are essential to sustaining a ready Marine Corps Reserve since the reserve functions at Headquarters, Marine Corps were decentralized and realigned. Under the current organization, reserve functions have been merged with others so that there is no longer a clear responsibility for reserve issues within a functional area. The senior officer in the Marine Corps with responsibility for reserve issues no longer reports directly to the Commandant. In fact, the most recent general officer serving as the senior officer with this responsibility also served as the Inspector General for the Marine Corps. This structure appears to be unique to the Marine Corps among the armed forces. The Secretary of Defense should consider reconstituting and strengthening this function.

Part B—Commission on the Assignment of Women in the Armed Forces

COMMISSION TO CONDUCT A COMPREHENSIVE STUDY AND TO MAKE RECOMMENDATIONS ON THE ASSIGNMENT OF WOMEN IN THE ARMED FORCES

The committee recommends provisions (secs. 521–529) that would require the President to appoint a commission to conduct a comprehensive study and to make recommendations on the assignment of women in the armed forces of the United States.

With these provisions, the committee acknowledges the outstanding contributions that women serving in the armed forces of the

United States have made to the national defense, despite laws and Department of Defense policies that prohibit their assignment to certain combat skills and positions. The committee fully recognizes that women in the military currently serve in many extremely demanding roles, that some of these roles expose military women to the risk of death in combat, and that military women performed with distinction in the recent Persian Gulf conflict.

Therefore, the current move to expand the role of women in the military Services is understandable. However, the quest to sanction the assignment of women to combat skills and positions raises basic questions about the future shape and structure of the armed forces that cannot be answered by merely opening selected combat skills and positions to women or by giving the Secretary of Defense discretionary authority to make the decision. The nation must make such decisions openly, deliberately, and after a full examination of all the available facts. It must neither continue the current combat restriction laws and policies for invalid reasons, nor repeal such laws or policies without a full understanding of the effect and meaning of such action.

As a matter of basic principle, the committee believes that equal opportunity has no gender. At the same time, the committee believes that combat effectiveness must always be the paramount consideration in determining assignment policies. It is in this context that the committee believes that the existing restrictions must be rigorously examined to determine whether or not they should be retained, modified, or repealed.

The Subcommittee on Manpower and Personnel conducted a hearing on this issue on June 18, 1991. At that hearing, Defense Department witnesses indicated that the administration would not make any substantive changes to its policies on the utilization of women if the current assignment restrictions in law are repealed, and the decision on assigning military women is left to the discretion of the Secretary of Defense. Other witnesses testified that women should be provided the same opportunities as men to serve in any skill or position in the armed forces, and that women should share the same responsibilities for national defense as men. These responsibilities would include being subject to draft registration, being subject to involuntary assignment to combat during military service, and being subject to conscription during periods when conscription may be authorized by law. On the other hand, other witnesses testified that women should not be placed in any combat role at all.

It is evident from the wide range of strongly held views heard by the subcommittee at that hearing, and the many crucial questions that were not satisfactorily answered, that substantially more study is required before the Congress or the administration can act conclusively on the future role of women in the armed forces. As a result, these provisions would establish a commission composed of 15 distinguished members to examine the questions thoroughly, objectively, and exhaustively. The committee expects this commission to study and report on, at the minimum, the following issues:

1. The combat readiness and effectiveness implications of opening some or all combat skills and positions to women.

—What are the physical requirements for each combat skill or position, including the full implications of gender norming?

—What is the impact of pregnancy and child care on assignment policies for military personnel?

—What is the practical effect of opening combat skills and positions to women on unit morale and cohesion?

2. The degree of public support for opening some or all combat skills and positions to women.

—Should combat assignments for women be voluntary or compulsory to the same extent such assignments are compulsory for men?

—Should women be required to register and be subject to the draft on the same basis as men if women have the same opportunity as men to compete for all skills and positions in the military?

3. The legal and constitutional implications of opening some or all combat skills and positions to women.

—If current combat exclusion laws are repealed, but the military Services retain the discretion to prescribe combat assignment restrictions for women, how will this affect the constitutionality of the male-only registration and service requirements of the Military Selective Service Act?

—If current combat exclusion laws and policies are repealed, would the present policy under which only males may be involuntarily assigned to combat skills and positions be sustainable?

4. The requirements and costs of modifying weapons systems to accommodate women for habitability and anthropomorphic reasons if some or all combat skills and positions are opened to women.

—What would be the impact of required changes in quarters, weapons, training, and what would be the costs of such changes?

—What would be the practical rate at which any required changes can be made in an era of severely constrained defense budgets?

Finally, the committee expects the report to include the commission's objective assessment of whether or not current laws or policies restricting the assignment of women to combat skills and positions should be retained, modified, or repealed. The commission shall include in its report specific recommendations on what roles in combat, if any, should be open to women; the kind of transition that should take place if women are to be placed in combat roles; whether such roles should be voluntary or mandatory; and whether such roles should involve special conditions and standards different from the conditions and standards expected of men.

Under the provisions recommended by the committee, the appointments of the members to the commission must be made within 60 days of the enactment of these provisions. In carrying out this study, the commission is authorized to use detailed staff and to seek such information (including information by conducting opinion polls) as the commission considers necessary from any federal department or agency. The committee encourages the commission to work closely with and to obtain the views of the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, the Secretaries of the Military Departments, the military chiefs of each of the military Services, and individual members of the military Services in carrying out this study and preparing its report.

The commission is required to complete its study by November 15, 1992, and the President is required to transmit the report and his recommendations to the Congress by December 15, 1992.

PART C—MATTERS RELATED TO CONTINGENCY OPERATIONS

GRADE IN WHICH RETIRED OFFICERS ARE ORDERED TO ACTIVE DUTY

The committee recommends a provision (sec. 531) that would make permanent the temporary authority provided in the Persian Gulf Authorization and Personnel Benefits Act of 1991, for the recall of retired personnel in the highest grade previously held on active duty and to be advanced on the retired list to that grade (with three years cumulative time in grade) upon release from active duty.

WAIVER OF FOREIGN LANGUAGE PROFICIENCY CERTIFICATION REQUIREMENTS PAY

The committee recommends a provision (sec. 532) that would make permanent the temporary authority provided in the Persian Gulf Supplemental Authorization and Personnel Benefits Act of 1991, for the payment of foreign language proficiency pay to certain personnel assigned in support of a contingency operation up to 180 days after such assignment is terminated, and to require foreign language proficiency certification thereafter for continued receipt of foreign language proficiency pay.

WAIVER OF BOARD CERTIFICATION REQUIREMENTS

The committee recommends a provision (sec. 533) that would make permanent the temporary authority provided in the Persian Gulf Supplemental Authorization and Personnel Benefits Act of 1991, for the payment of board certification pay to certain health care providers assigned in support of a contingency operation up to 180 days after such assignment is terminated, and to require board certification thereafter for continued receipt of board certification pay.

COMMISSION ON THE NATIONAL SHORTAGE OF AVIATORS

The committee is disappointed at the apathy of the Department of Defense in addressing the problem of the national shortage of aviators which has a direct effect on the retention of aviators in the military Services. The committee notes that at the same time the Department of Defense is requesting extension of the authority to pay the aviator retention bonus, it is taking no positive action to address military aviator retention in the broader context of the national shortage of aviators as suggested by the Congress in the National Defense Authorization Act for Fiscal Year 1990. Specifically, the Assistant Secretary of Defense for Force Management and Personnel testified in response to a question on the status of the commission on the national shortage of aviators that:

> "There have been no efforts by the Department of Defense to revive the commission on the national shortage of aviators. Be-

> cause the issues and potential remedies center more on national transportation and the commercial transportation industry, the Department of Transportation has the lead on the Blue Ribbon Panel to address the national shortage of pilots and aviation maintenance technicians. The Department of Defense stands ready to provide any information and data that would be useful to this effort."

The committee finds this attitude irresponsible and directs the Secretary of Defense to renew Department of Defense efforts to revive the commission. In this regard, the Department of Defense is directed to provide one-half of the funding required for operation of the commission.

TITLE VI—COMPENSATION AND OTHER PERSONNEL BENEFITS

PART A—PAY AND ALLOWANCES

MILITARY PAY RAISE

The committee recommends a provision (sec. 601) that would provide a 4.2 percent pay raise for military personnel effective January 1, 1992, as requested by the Department of Defense.

BASIC ALLOWANCE FOR QUARTERS (BAQ) FOR SINGLE PERSONNEL WHO DRAW BAQ SOLELY BY REASON OF PAYMENT OF CHILD SUPPORT.

The committee recommends a provision (sec. 602) that would limit the amount of BAQ paid to single personnel who draw BAQ solely by reason of payment of child support to the difference between the "with dependent" and "without dependent" BAQ rates. This provision was requested by the Department of Defense.

ADMINISTRATION OF BASIC ALLOWANCE FOR QUARTERS AND VARIABLE HOUSING ALLOWANCE

The committee recommends a provision (sec. 603) that would require military personnel to certify annually their housing costs and dependency status as a basis for entitlement to Basic Allowance for Quarters and Variable Housing Allowances. This provision was requested by the Department of Defense.

PART B-MISCELLANEOUS PAY AND BENEFITS MATTERS

AVIATION CADET PAY

The committee recommends a provision (sec. 611) that would change aviation cadet pay from 50 percent of the pay of an O-1 with less than two years of service, which is about the same as E-1 pay, to the basic pay rate for an E-4 with two or less years of service.

PAY FOR SENIOR ENLISTED MEMBERS WHILE ON TERMINAL LEAVE

The committee recommends a provision (sec. 612) that would allow the senior enlisted members of the Army, Navy, Air Force, Marine Corps, and Coast Guard to continue to receive the rate of basic pay for these positions when they vacate these positions and are placed on terminal leave pending retirement. A senior enlisted member in this status is entitled to such basic pay for not more than 90 days.

FUNDED TRAVEL DURING SHIP CONSTRUCTION

The committee recommends a provision (sec. 613) that would fund the travel of dependents of members assigned to ships under construction on the same basis allowed for dependents of members assigned to ships under overhaul or inactivation.

REIMBURSEMENT FOR MEAL AND LODGING EXPENSES IN CERTAIN UNUSUAL AND EMERGENCY CIRCUMSTANCES

The committee recommends a provision (sec. 614) that would authorize reimbursement for travel and transportation expenses, in unusual or emergency situations involving danger to human life or destruction of federal property, to members who are directed by competent authority to perform duty at locations within the limits of their duty station requiring overnight accommodations.

CLARIFICATION AND EXPANSION OF THE DEFINITION OF THE TERM "DEPENDENT" FOR CERTAIN ALLOWANCES

The committee recommends a provision (sec. 615) that would modify the current definition of the term "dependent" in 37 U.S.C. 401 to include certain people who are clearly dependent upon a service member for support, such as a child whose custody is granted to a member by a court order or decree, parents-in-law, and other minors who reside in the member's household who are currently precluded from meeting the "dependent status test" for travel and transportation allowances.

HAZARDOUS DUTY PAY FOR CERTAIN TYPES OF PARACHUTE JUMPING

The committee recommends a provision (sec. 616) that would expand current authority (37 U.S.C. 301(c)(1)) which provides for a monthly hazardous duty pay of $165 per month to high altitude/low opening parachute jumps to include all free fall operations involving jumper deployed parachute openings.

EXTENSION OF AUTHORITIES RELATING TO PAYMENT OF CERTAIN BONUSES AND OTHER SPECIAL PAY

The committee recommends a provision (sec. 617) that would extend the expiration date of certain bonuses and special pay as indicated: (a) the authority to pay aviators a retention bonus under 37 U.S.C. 301b(a) from September 30, 1991 to December 30, 1993; (b) the authority to pay special unit assignment pay under 37 U.S.C. 308d(c) from September 30, 1991 to September 30, 1993; (c) the authority provided under 37 U.S.C. 302d(a) for a registered nurse accession bonus, and the authority provided under 10 U.S.C. 2130a(a) for financial assistance to nurse candidates from September 30, 1992 to September 30, 1994; (d) the authority provided under 37 U.S.C. 302e(a) for a special pay for certified nurse anesthetists from September 30, 1992 to September 30, 1993; (e) the authority provided under 37 U.S.C. 308(g) to pay reenlistment bonuses from September 30, 1992 to September 30, 1997; (f) the authority provided under 37 U.S.C. 308a(c) to pay enlistment bonuses from September 30, 1992 to September 30, 1997; and (g) the authorities provided under 37 U.S.C. 308b(g), 308c(f), 308e(e), 308g(h), 308h(g) and 308i(i) for enlistment and reenlistment bonuses for the reserve forces from September 30, 1992 to September 30, 1995.

REIMBURSEMENT FOR ADOPTION EXPENSES

The committee recommends a provision (sec. 618) that would authorize military families to be reimbursed for adoption expenses ($2,000 per adoption, limited to $5,000 per year per family).

The National Defense Authorization Act for Fiscal Years 1988 and 1989 authorized a two-year test program for the reimbursement of adoption expenses for members of the armed forces. Because the Department of Defense was slow in implementing the test, the authority for the test was extended by one year in the National Defense Authorization Act for Fiscal Year 1990. The Senate adopted a provision in the National Defense Authorization Act for Fiscal Year 1991 to make the adoption reimbursement authority permanent. However, the provision was not enacted into law in order to allow a review of the test which the Department of Defense had been tardy in reporting.

The committee has reviewed the report on the test which was submitted to the committee on May 2, 1991. The two-page report falls short of the committee's expectations. Nonetheless, the report does indicate Department of Defense support for the concept of adoption by Service members. Although the Department concludes that monetary reimbursement is not the best form of assistance, no other form of assistance is recommended in the report. Therefore, the committee recommends that the adoption reimbursement provision passed by the Senate last year be revived.

TRANSPORTATION OF REMAINS OF A DEPENDENT OF A RETIRED MEMBER OF THE ARMED FORCES WHO DIES IN A MILITARY MEDICAL TREATMENT FACILITY

The committee recommends a provision (sec. 619) that would amend 10 U.S.C. 1490 to authorize the transportation of the remains of a dependent of a retired member of the armed forces who dies in a military medical treatment facility away from the family's permanent residence. Such authority currently exists for retired decedents.

AUTHORITY TO REIMBURSE OMBUDSMAN OR FAMILY CENTER VOLUNTEER FOR CERTAIN EXPENSES

The committee recommends a provision (sec. 620) that would amend 10 U.S.C. 1588 to authorize the use of appropriated funds for the reimbursement of incidental expenses which are incurred by a person providing voluntary services as an ombudsman or family center volunteer.

FLEXIBILITY TO DEFER TRAVEL AUTHORIZED IN CONJUNCTION WITH A CONSECUTIVE OVERSEAS TOUR

The committee recommends a provision (sec. 621) that would amend 37 U.S.C. 411b(a)(2) to provide members of the uniformed Services and their dependents with the flexibility to defer travel in conjunction with a consecutive overseas tour for up to one year from the date the member reports to a new duty station or begins a consecutive overseas tour at the same duty station.

REMOTE MAINTENANCE ALLOWANCE FOR CERTAIN CIVILIAN EMPLOYEES OF THE FEDERAL GOVERNMENT ASSIGNED TO JOHNSTON ISLAND

The committee recommends a provision (sec. 622) that would amend chapter 5 of title 5, United States Code, to add a section authorizing a remote maintenance allowance for civilian employees of the United States assigned to Johnston Island equal to that authorized an employee in a foreign area under section 5924(3) of title 5, United States Code.

AUTHORITY TO OFFER THE SUPPLEMENTAL SURVIVOR BENEFIT PLAN IN INCREMENTS

The committee recommends a provision (sec. 623) that would amend the Supplemental Survivor Benefit Plan authorized in subchapter III of title 10, United States Code, to provide authority to offer the supplement in increments of 5 percent, 10 percent, 15 percent, and 20 percent of the base amount of coverage.

WAIVER OF REDUCTION OF RETIRED PAY UNDER SPECIFIED CONDITIONS

Section 1206 of the National Defense Authorization Act for Fiscal Year 1991 authorized the executive branch to waive the penalty against further government service by military retirees on a case-by-case basis for employees in positions for which their is exceptional difficulty in recruiting or retaining qualified personnel. The committee recommends a provision that would provide the same carefully limited authority to the legislative branch, where there is a similar need for highly qualified employees with scientific, technical, and professional expertise.

REPRESENTATIVE PAYEE FOR CERTAIN SURVIVOR BENEFIT PLAN BENEFICIARIES

The committee recommends a provision (sec. 625) that would authorize the Department of Defense, like the Social Security Administration and the Department of Veterans' Affairs, to pay an annuity due a minor or incompetent survivor of a military retiree to a representative payee, without requiring the payee to be a court-approved guardian or fiduciary.

The provision would allow the Secretary of Defense to prescribe regulations for the selection of the representative payee. In addition, it would require representative payees to verify that amounts received on behalf of the annuitant are used for their benefit. To protect the annuitant's interests, the Secretary may require a representative payee to provide a surety bond.

ADJUSTMENT IN AUTHORITY TO WAIVE CLAIMS RELATED TO TRAVEL AND TRANSPORTATION ALLOWANCES

Under current law, when the government erroneously overpays travel or transportation allowances, the government may waive repayment upon a determination that collection of the claim would be against equity and good conscience and not in the best interests of the United States. The head of an agency may approve a waiver that does not exceed $500, while a waiver for a greater amount may be approved only by the Comptroller General. The $500 limit has remained constant since 1968. The administration has requested that the agency head's waiver authority be increased to $2,500 in order to improve the government's responsiveness to employees who request waivers. The committee recommends a provision that would make the necessary changes in law.

PART C—MATTERS RELATED TO CONTINGENCY OPERATIONS

DEFINITION OF CONTINGENCY OPERATION

The committee recommends a provision (sec. 641) that would define contingency operation to include military operations, designated by the Secretary of Defense, in which members are or may become involved in hostilities involving foreign or other opposing military forces, or those in which reservists, recalled retirees, or personnel involuntarily retained on active duty are required to serve.

TREATMENT OF ACCRUED LEAVE

The committee recommends a provision (sec. 642) that would make permanent the temporary authority provided in the Persian Gulf Supplemental Authorization and Personnel Benefits Act of 1991, to allow payment for unused leave accrued by reserve and retired members while on active duty in support of a contingency operation to such members, and to allow payment for unused leave accrued by an active duty member who dies while serving in support of a contingency operation to the survivor of such member.

AUTHORIZATION TO EXCEED CEILING ON ACCUMULATION OF ACCRUED LEAVE

The committee recommends a provision (sec. 643) that would make permanent the temporary authority provided in the National Defense Authorization Act for Fiscal Year 1991, to allow military personnel serving on active duty in support of a contingency operation to accrue up to 90 days of leave.

SAVINGS PROGRAM FOR OVERSEAS MEMBERS AND MEMBERS IN A MISSING STATUS

The committee recommends a provision (sec. 644) that would make permanent the authorities provided in the National Defense Authorization Act for Fiscal Year 1991, and the Persian Gulf Supplemental Authorization and Personnel Benefits Act of 1991, to: 1) permit military personnel on temporary assignment outside the United States in support of a contingency operation to deposit unallotted pay earned while on such assignment in a savings plan under 10 U.S.C. 1035, and 2) permit military personnel in a missing status to exceed the $10,000 limit on the savings plan.

BASIC ALLOWANCE FOR QUARTERS FOR RESERVISTS WITHOUT DEPENDENTS

The committee recommends a provision (sec. 645) that would make permanent the temporary authority provided in the Persian

Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991, to permit the payment of basic allowance for quarters to single reserve personnel when serving on active duty in support of a contingency operation.

DETERMINATION OF VARIABLE HOUSING ALLOWANCE (VHA) FOR ACTIVATED RESERVISTS AND RETIREES.

The committee recommends a provision (sec. 646) that would make permanent the temporary authority provided in the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 (P.L. 102–25) to base the VHA of activated reservists on their principal place of residence, and extend this authority to cover activated retirees.

MEDICAL, DENTAL, AND NON-PHYSICIAN SPECIAL PAYS FOR RESERVE, RECALLED, OR RETAINED HEALTH CARE OFFICERS

The committee recommends a provision (sec. 647) that would make permanent the temporary authority provided in the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991, to pay medical special pays to medical personnel who are activated in the future.

INCREASE IN IMMINENT DANGER PAY

The committee recommends a provision (sec. 648) that would make permanent the temporary authority provided in the Persian Gulf Supplemental Authorization and Personnel Benefits Act of 1991, increasing the amount of monthly imminent danger pay from $110.00 per month to $150.00 per month.

VARIABLE HOUSING ALLOWANCE FOR RESERVISTS

The committee recommends a provision (sec. 649) that would make permanent the temporary authority provided in the National Defense Authorization Act for Fiscal Year 1991, for the payment of variable housing allowances to reserve personnel activated to support a contingency operation.

INCREASE IN FAMILY SEPARATION ALLOWANCE

The committee recommends a provision (sec. 650) that would make permanent the temporary authority provided in the Persian Gulf Supplemental Authorization and Personnel Benefits Act of 1991, increasing the amount of monthly family separation allowance from $60.00 per month to $75.00 per month.

INCREASE IN AMOUNT OF DEATH GRATUITY

The committee recommends a provision (sec. 651) that would make permanent the temporary authority provided in the Persian Gulf Supplemental Authorization and Personnel Benefits Act of 1991, increasing the amount of death gratuity pay from $3,000 to $6,000.

CLARIFICATION OF THE INTENT OF SECTION 304 OF THE PERSIAN GULF CONFLICT SUPPLEMENTAL AUTHORIZATION AND PERSONNEL BENEFITS ACT OF 1991

The committee recommends a provision (sec. 652) that would amend section 304 of the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 to adjust the effective date of the entitlement to special pays for health care officers to August 1, 1990. This provision would reflect the intent of the Congress in providing these officers the same period of coverage previously provided to medical and dental officers in the National Defense Authorization Act for Fiscal Year 1991.

UNEMPLOYMENT COMPENSATION FOR MILITARY PERSONNEL

During its debate on the National Defense Authorization Act for Fiscal Year 1991, the Senate passed a provision to provide separating military personnel the same unemployment compensation coverage that is provided for civilian personnel. Currently, separating military personnel are authorized 13 weeks of unemployment benefits after four weeks of unemployment. Civilians are authorized 26 weeks of unemployment compensation after one week of unemployment.

The Senate-passed provision was not enacted last year, because the committee agreed to a request by the Senate Finance Committee and the House Ways and Means Committee to defer the provision for consideration by these two committees as a matter falling under their jurisdiction. The committee notes that the Senate Finance Committee has since held a hearing on this matter. The committee urges the Senate Finance Committee to take favorable action in concert with the House Ways and Means Committee to correct the unemployment compensation disparity this year. Military personnel and their families deserve the same safety net as civilian personnel and their families, especially during this period of substantial reductions in military strength.

TUITION ASSISTANCE

The committee continues to support the tuition assistance program for off-duty education in the military Services. This program has helped many active duty personnel improve their education and become more well-rounded citizens.

The committee recognizes that budgetary pressures have required the military Services to reduce the scope of the tuition assistance program over the last few years. As a result, access to the program has become more limited. The committee believes that to ensure equity in seeking access to tuition assistance, the Secretary of Defense should establish uniform standards and procedures for the military Services that take into account not only the benefits to specific military skill requirements, but also the broader benefit to the individual and to society. The committee urges the Secretary of Defense to act accordingly.

TITLE VII—HEALTH CARE SERVICES

DEPENDENT DENTAL INSURANCE PLAN

The committee recommends a provision (sec. 701) that would authorize the Secretary of Defense to expand the dependent dental insurance program provided in 10 U.S.C. 1076a to include an option for supplemental coverage of a broader range of dental services at a higher monthly premium. The limit on the current premium for dependent dental insurance is $10.00 per month. This provision would retain that premium limit for the existing basic coverage, and establish an identical limit of $10.00 for the supplemental option.

HOSPICE CARE

The committee recommends a provision (sec. 702) that would authorize hospice care in either military hospitals or under CHAMPUS. Such care would be limited to palliative care and support services.

PARTIAL HOSPITALIZATION FOR CHAMPUS MENTAL HEALTH CARE

The committee recommends a provision (sec. 703) that would authorize the Department of Defense to provide partial hospitalization (less than 24-hour care) for mental health beneficiaries under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). This provision would provide a needed service at lower cost (50 percent of the full hospitalization rate), and allow more efficient use of resources for needed mental health care.

BLOOD-LEAD LEVEL SCREENINGS OF DEPENDENT INFANTS

The committee recommends a provision (sec. 704) that would authorize, as part of currently authorized infant care, well baby care that includes one screening of an infant for the level of lead in the blood of the infant.

MULTIYEAR RETENTION BONUS

The committee recommends a provision (sec. 705) that would repeal section 201 of the Dire Emergency Supplemental Appropriations for Consequences of Operation Desert Shield/Desert Storm, Food Stamps, Unemployment Compensation Administration, Veterans Compensation and Pensions, and Other Urgent Needs Act of 1991.

The section that would be repealed by this provision makes practicing general and flag officer physicians eligible for a multiyear retention bonus. The increases provided in special and incentive pays for military physicians in the National Defense Authorization Act for Fiscal Year 1991 included increases for general and flag officers. Opening this retention bonus, when no other retention bonuses are open to general and flag officers, is contrary to prudent military compensation policy.

RESTORATION OF CHAMPUS TO CERTAIN RETIRED MEMBERS AND DEPENDENTS UNDER THE AGE OF 65

The committee recommends a provision (sec. 706) that would authorize CHAMPUS to be a secondary payer to Medicare for retired members and dependents under the age of 65.

Under current law, a CHAMPUS beneficiary who is classified as fully disabled for two years under Social Security standards automatically becomes eligible for Medicare and loses CHAMPUS eligibility. This provision would authorize CHAMPUS to be a secondary payer to Medicare until the beneficiary is 65 years old, the age at which the beneficiary would normally be required to switch from CHAMPUS to Medicare coverage.

The committee believes this provision provides a needed, equitable safety net to CHAMPUS beneficiaries who currently lose their CHAMPUS coverage through no fault of their own before the normal point of conversion to Medicare at age 65.

CONTROL OF NONAVAILABILITY CERTIFICATES FOR CHAMPUS IN CATCHMENT AREAS WITH HEALTH CARE SERVICES CONTRACTS

The committee recommends a provision (sec. 707) that would authorize commanders of military medical treatment facilities to consider contracts and agreements for health care services with providers and institutions within a facility's catchment area in determining the availability of adequate medical services when issuing or denying non-availability certificates for CHAMPUS care.

Currently, CHAMPUS beneficiaries may choose CHAMPUS care except that "the right to make this election may be limited" if adequate "facilities of the uniformed services are available." The committee believes that external agreements with local providers and institutions can be more cost-effective than patient self-selected CHAMPUS care and that these arrangements should be considered extensions of the military treatment facilities they support. The military medical treatment facility commander would have authority to deny a non-availability statement when the required care is available from a provider with whom the military treatment facility has a preferred provider/participating arrangement, even if in a facility outside the military treatment facility.

CHAMPUS CLAIMS FORMS

The committee recommends a provision (sec. 708) that would require all health care providers, regardless of the providers' CHAMPUS participation status, seeking payment from CHAMPUS to submit claims directly to the appropriate CHAMPUS fiscal intermediary.

Currently CHAMPUS claim forms are submitted by providers who "participate" in CHAMPUS or by patients who choose "nonparticipating" providers who do not submit bills to the CHAMPUS fiscal intermediary but bill their patients directly. The committee understands that between 30 and 50 percent of all claims are submitted by patients. As a result, many claims are returned because they are incomplete or incorrect. This results in unnecessary rework, added expense, poor cash flow management, and general patient dissatisfaction.

Until September 1990, the Health Care Finance Administration (HCFA) operated under the same procedures for Medicare claims. To remedy the inefficiencies caused by patients submitting their own claim forms to the fiscal intermediary, section 6021 of the Omnibus Budget Reconciliation Act of 1989 required all providers seeking reimbursement from HCFA to submit claim forms to the appropriate fiscal intermediary whether they are "participating" providers or not. This action relieves patients of the burden of submitting claims, and should result in reduced errors and rework. The committee believes similar benefits would accrue to defense and military beneficiaries under this provision.

REVISED DEADLINE FOR THE USE OF DIAGNOSIS-RELATED GROUPS FOR OUTPATIENT TREATMENT

The committee recommends a provision (sec. 709) that would amend section 724 of the National Defense Authorization Act for Fiscal Year 1990 (P.L. 101-189) to extend the effective date for the use of diagnosis-related groups for outpatient treatment from October 1, 1991 to October 1, 1993.

The committee's recommendation recognizes that the Department of Health and Human Services only recently published for comment the physicians payment system for ambulatory Medicare patients, and has not yet published a system for ambulatory facilities. Therefore, this provision provides the Department of Defense sufficient time to adequately analyze and implement these systems.

COMPOSITE HEALTH CARE SYSTEM (CHCS)

The committee recommends a provision (sec. 710) that would authorize use of the Composite Health Care System (CHCS) to provide information systems support in military medical treatment facilities when the Secretary of Defense certifies to the Committees on Armed Services of the Senate and House of Representatives that such use is the most cost-effective method of providing such support at the facilities.

The committee is concerned that the Department of Defense retain the authority to deploy the portions of CHCS that have been operationally tested, and meet the requirements for certification contained in Public Law 10-510. The committee believes that, while developmental efforts continue on the full functional operation of CHCS, the Department of Defense should have the authority to make available critically needed automation support to military treatment facilities. Deployment of CHCS components must be on the basis of demonstrated need by the facility and proven functional operation of the CHCS component.

MANAGEMENT AND FUNDING OF UNIFORMED SERVICES TREATMENT FACILITIES

The committee recommends a provision (sec. 711) that would require all uniformed services treatment facilities (USTF), including satellite facilities, to be managed and funded in accordance with the provisions of section 911 of Public Law 97-99 and section 1252 of Public Law 98-94, as amended when the USTF managed care model is implemented. This provision would standardize the management and funding of all USTFs under a single managed care system.

TRANSITIONAL HEALTH CARE

The committee recommends a provision (sec. 712) that would make permanent the temporary authority provided in the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act for Fiscal Year 1991, to provide 30 days of transitional health care to service members activated from the Reserves or retained on active duty in support of a contingency operation, and their families.

ALTERNATIVE MEANS FOR IMPROVING MANNING IN CRITICAL COMBAT MEDICAL SKILLS IN THE ARMY RESERVE

The committee has received information that the First Army Augmentation Detachment, which was established as an alternative means for recruiting and retaining combat critical health care professionals in the Reserve, may be abolished. The committee believes that such action may be counterproductive to improving the manning in critical medical skills in the Army Reserve. The committee directs the Assistant Secretary of Defense for Health Affairs and the Assistant Secretary of Defense for Reserve Affairs to look into and take appropriate action on this matter.

IMPROVED METHOD FOR IDENTIFICATION OF REMAINS

The committee inquired into the desirability of blood storage and deoxyribonucleic acid (DNA) testing as an improved method for the identification of remains. At a hearing conducted by the Subcommittee on Manpower and Personnel, Defense Department officials generally endorsed moving toward this newer, more efficient technology. The committee expects the Assistant Secretary of Defense for Health Affairs to give the Subcommittee a status report on plans in this area at medical hearings next year.

MEDICAL RESEARCH PROGRAM IN INFECTIOUS DISEASE, BIOLOGIC WARFARE DEFENSE, AND HUMAN IMMUNODEFICIENCY VIRUS INFECTION

The committee is concerned about the cooperative efforts between the Army and the Navy in funding medical research programs in infectious diseases, biologic warfare defense, and human immunodeficiency virus infection. The committee has received information that there may be a lack of support and cooperation between these two Services. The committee directs the Assistant Secretary of Defense for Health Affairs to review the situation and take appropriate action, including recommendations to the committee if legislative action is required.

YEAR 2000 HEALTH OBJECTIVES PLAN

The committee believes that encouraging and maintaining a healthy, physically fit workplace within the Department of Defense is fundamental to maintaining our national security. Consequently, the committee supports the Department's effort to improve the health and well-being of military personnel and their dependents, particularly through an emphasis on individual responsibility for health promotion and disease prevention.

The committee acknowledges the improvements that have been made in the military's health status since the Department issued the Congressionally-mandated "Report of the Blue Ribbon Panel on Health Promotion" in 1986 and the "Updated Report on Smoking and Health in the Military" in 1987. The committee remains concerned, however, that health promotion and disease prevention have not yet achieved the level of priority within the Department needed for lasting significant change.

Therefore, the committee directs the Secretary of Defense, in consultation with the Secretary of the Department of Health and Human Resources, to convene another "blue ribbon panel" of public health experts to update the "Report on the Blue Ribbon Panel on Health Promotion," and the "Report on Smoking in the Military." The new "blue ribbon panel" should place emphasis on: evaluating the progress made by the Department in areas of health promotion and disease prevention since 1986; assessing the present level of activity in the armed services on these issues; and recommending necessary expansion and improvement in current health promotion and disease prevention programs for military personnel and their dependents. The committee directs that the panel's findings be submitted to the Congress by April 1, 1992.

VIII—ACQUISITION POLICY, ACQUISITION MANAGEMENT, AND RELATED MATTERS

DOD DUAL-USE CRITICAL TECHNOLOGY PARTNERSHIPS

The administration's statement on U.S. Technology Policy, issued by the Executive Office of the President on September 26, 1990, includes as one responsibility of the federal government, participation with the private sector in pre-competitive research on generic enabling technologies that have the potential to contribute to a broad range of government and commercial applications.

Section 244 of the National Defense Authorization Act for Fiscal Year 1991 directed that $50.0 million be made available to support advanced pre-competitive research through the Defense Advanced Research Projects Agency (DARPA). The committee commends DARPA in its selection of six important technological areas where cooperative government-industry development holds the promise of achieving substantial advances and understands that many additional areas could have been funded if additional funds had been available. Nevertheless, the administration included no funding for pre-competitive research in its amended defense budget request for fiscal years 1992 and 1993.

The committee believes that the United States tends to underinvest in dual-use technologies. National security requirements alone often do not justify major DOD support, and market prospects alone often appear to be too long-term or high-risk to justify U.S. industry in carrying the entire development burden. The National Critical Technologies Panel alluded to this problem as one reason for the poor showing of U.S. industry in high-definition imaging and displays.

This provision would authorize the Secretary of Defense to enter into cooperative arrangements to develop critical dual-use technologies as identified in the *Defense Critical Technologies Plan*. The committee intends that the industry partners will lead in these partnerships but welcomes participation by government laboratories and universities as well. The committee encourages use of cooperative agreements and other transactions in lieu of grants or contracts when such authority best fits the needs of the partnership. The committee seeks broad industry participation in each partnership to ensure competition in applying partnership results in the marketplace. The committee also encourages the selection of partnership proposals in which the degree of perceived risk is high enough to preclude a timely private sector investment in these development activities.

The provision would require that at least 50 percent of funding over the life of a partnership derive from non-federal sources but would allow for a smaller industry share at the start of a partnership when risks are greatest. In addition, the contribution made by a non-federal government participant may be a lesser percentage of the total cost incurred during a particular period of partnership activity or a lesser percentage of the cost of a particular activity depending on the particular situation encountered. Further, the valuation of the contributions made by non-federal government partnership members shall include the fair market value of equipment, services, materials, technology transfer activities, and other assets directly related to the costs of the partnership.

The committee also intends that no federal funding made available under this section shall be used in the construction of new buildings or facilities or in making major repairs and/or refurbishments of existing buildings. The committee directs that partnerships be selected on the basis of merit through competitive procedures. A broad agency announcement would meet the requirement for competitive procedures.

The committee also directs that the reporting requirements established for the DARPA pre-competitive technology development program in the conference report (H. Rept. 101-923), accompanying the National Defense Authorization Act for Fiscal Year 1991 be continued in fiscal year 1992.

The committee authorizes $10.0 million for the Army, $20.0 million for the Navy, $40.0 million for the Air Force, and $100.0 million for the Defense Advanced Research Projects Agency each year for fiscal year 1992 and fiscal year 1993 for use in establishing and participating in consortia and other partnership arrangements to develop critical pre-competitive dual-use technologies.

CRITICAL TECHNOLOGY APPLICATION CENTERS

The committee believes that a major shift in emphasis in U.S. technology development is required. One of the foremost problems facing the nation is the increasing failure of America's private sector to "commercialize" new technology, be it for defense or civilian application. As a result, foreign competitors have taken American technology and, in many instances, converted it into high value-added products capable of being produced more efficiently than can be done by the original U.S. developer.

The committee recommends a provision that would direct the Department of Defense to make grants to support the establishment, on a cost share basis, of regional Critical Technology Application Centers (CTACs). These grants are intended to help U.S. firms commercialize innovations in critical technologies. The CTACs would be organized around geographic concentrations of firms and related R&D activities that already exist around the nation. CTACS would provide services such as operation of equipment testbed and scale-up facilities; development, testing, and evaluation of prototypes; sharing of technical expertise relating to design and management; dissemination of information relating to market trends and technical advances in materials and production equipment; technical education and training; review of the technical feasibility of ideas; and other services that a single firm could not accomplish individually.

Because the basic CTAC goal is promoting technology commercialization, the committee believes that this program must be industry-driven. Industry members should comprise a majority of the board of directors for any CTAC, should collectively determine the policies and activities of the CTAC, and should provide at least 40 percent of the cost of the center. State and local agencies, including universities and colleges, should provide at least 30 percent of the cost. The federal government would provide the remaining share, not to exceed 30 percent, for a start-up period not exceeding six years. The committee believes that in determining the non-federal contribution, the fair market value of contributed equipment, services, materials, and other assets directly related to the activities of the center should be included.

Centers receiving assistance under this program should concentrate on building upon, and not duplicating, the activities of existing regional institutions that are already assisting industry in the region. Further, the committee intends that the technological expertise and capabilities in the federal laboratories, including the Department of Energy national laboratories, be made available and used by CTACs.

CTACs should be selected using a merit-based process prescribed by the Secretary of Defense, working in close cooperation with the Secretary of Commerce. The committee intends that the selection process include four key criteria. The first criterion is the proposed CTAC's potential to increase the productivity and global competitiveness of regional firms. Second is the level of industrial involvement evidenced by commitment of funds and human resources, by the significant participation of small and medium-sized firms, and by participation of supplier and customer firms. The third criterion is the potential for the CTAC to become self-sustaining after termination of federal support. The fourth criterion is the degree of involvement of state and local agencies, post-secondary educational institutions, and non-profit organizations, including the integration of CTAC goals into their established programs and activities.

The committee believes that to attract eligible firms, especially the smaller ones, it may be necessary for CTACs to conduct some proprietary R&D of interest to one or more member firms. The cost of such R&D should not exceed 15 percent of the total cost of the center in any fiscal year, and no federal government funds provided under this program should be used to support these proprietary development activities.

The committee believes that all CTACs should operate under a management plan that details the provisions for eligible firms' participation and how they will have the primary responsibility for directing the activities of the center. This plan shall also provide for the participation of small and medium-sized firms, including a dues structure that encourages their participation. The committee further directs the Secretary of Defense, in coordination with the Secretary of Commerce and the Director of the Office of Science and Technology Policy, to appoint a panel drawn from industry, state and local government, institutions of higher education, non-profit organizations, and the federal government to evaluate the plans and operation of each CTAC established. Additional DOD financial support should depend on this panel's evaluation of the degree to which a CTAC is meeting its intended purpose.

To support the first year of operation of this program, the committee authorizes an additional $50.0 million under program element 63570D in fiscal year 1992 and an additional $75.0 million in fiscal year 1993.

FOREIGN CRITICAL TECHNOLOGY MONITORING CLEARINGHOUSE

The committee notes that a large amount of information on foreign technology is currently collected by DOD and other agencies but is not made available to individuals in government and industry that could make use of it. The committee also has not been impressed by the quality and timeliness of foreign technology information provided to Defense Department acquisition personnel. For example, the committee has been informed that the Defense Science Board has in the past had to rely on industry sources to obtain key documents when it could not obtain them from within the Department.

The committee believes that the Department of Defense would benefit from the establishment of a focal point for coordinating foreign science and technology monitoring programs. This provision would establish a clearinghouse for foreign defense critical technology monitoring and assessment within the Office of the Director of Defense Research and Engineering. The committee authorizes at $10.0 million in each year for fiscal years 1992 and 1993 to support the operation of this center.

The committee intends that this clearinghouse serve the needs of senior policymakers in DOD and in other federal government departments and agencies. The committee encourages the clearinghouse to minimize classification of its information and assessments so that they may be shared with the private sector.

Finally, the committee encourages the clearinghouse to utilize the foreign technology evaluation program of the National Science Foundation (NSF) to carry out assessments of foreign capabilities in critical technologies. The committee has been impressed by the quality of the reports produced, and by the effort to disseminate the reports to government agencies and industry. The committee directs that DOD enter into a memorandum of understanding with NSF under which the DOD clearinghouse shall make available $1.0 million each of fiscal years 1992 and 1993 to support this NSF effort.

OVERSEAS FOREIGN CRITICAL TECHNOLOGY MONITORING AND ASSESSMENT GRANT PROGRAM

The committee believes that the private sector should play a greater role in the monitoring of significant foreign developments in critical technologies. The committee has been particularly impressed by the technology monitoring efforts of the American Electronics Association's office in Tokyo. The committee believes that broader involvement of industry associations and professional societies in monitoring and assessing foreign technologies could benefit both government and industry, particularly small and medium-sized firms. The committee, therefore, recommends establishment of a grant program to support industry associations and professional societies in establishing offices abroad to monitor foreign critical technologies. The committee authorizes funding of $7.5 million in each of fiscal years 1992 and 1993 for this program.

NATIONAL CRITICAL TECHNOLOGY ROAD MAPS

The committee has previously expressed its belief that the United States must have a comprehensive science and technology policy to insure that all technologies critical to the national defense and global competitiveness are addressed in a coordinated, consolidated manner. This strategy must recognize that American industry remains the primary decision-maker on whether and how technologies are to be applied. The federal government must not attempt to usurp this free enterprise prerogative of industry, but to support it through providing an infrastructure for communication, cooperation, and risk reduction.

In Section 841 of the National Defense Authorization Act for Fiscal Years 1990 and 1991, the Congress took an initial step towards addressing this issue through the establishment of a panel of experts to prepare and submit a biennial National Critical Technologies report. The first report of the Panel was released in March 1991 and identified 22 critical technologies under six broad categories. The technologies identified were, in the main, consistent with the critical technologies previously identified by the Department of Defense, the Department of Commerce, and industrial associations.

It is apparent to the committee that the task of reaching a national consensus on the identification and priority of those technologies that are most important to the national well-being has largely been completed. What remains undone, and what was not addressed in the report of the National Critical Technologies Panel, is development of a coherent road map for developing each of these technologies.

The committee believes that a piecemeal approach to the creation of a national road map for development of all 22 critical technologies will cause unacceptable delays and inefficiencies. There is an urgent need for a single focal point within government, the Office of Science and Technology Policy (OSTP), to follow the work already performed by the National Critical Technologies Panel and prepare the strategic road maps that transcend agency boundaries to establish the strong foundation from which the nation as a whole can proceed.

This provision would require the President, acting through the Director, OSTP and the Federal Coordinating Council for Science, Engineering, and Technology Committee (FCCSET), to develop, issue, and submit to Congress, on a regular basis until October 1, 1996, multi-year strategic road maps for each national critical technology. The provision directs the FCCSET to maintain a continuing, close involvement of the private sector industries to ensure that the road maps meet their intended purpose. In each area, the road maps should provide an up-to-date assessment of the national capability in that technology, provide guidance for conduct of federal government activities, establish program goals and priorities both at the government-wide level and for each involved department and agency, and assess the contribution that foreign sources might make in furthering the technology. The provision would also direct the establishment of one or more national critical technology advisory committees to provide expert advice to the FCCSET in developing the road maps.

The committee notes that the administration, with strong congressional support, has already established a major cross-agency initiative in high performance computing, one of the 22 critical technologies. The committee has also been informed that the administration is planning to establish similar cross-agency planning activities in advanced materials, manufacturing, and biotechnology in the near future. The committee suggests that these three technology areas might be used to satisfy initial submission requirements of the provision.

The committee recognizes that the effort required to research, coordinate, and prepare these strategic road maps is substantial, beyond the capabilities of the FCCSET organization as presently structured. The committee intends that the Critical Technologies Institute, established as section 822 of the National Defense Authorization Act for Fiscal Year 1991, be used to provide the necessary support. The committee believes that this federally funded research and development center is ideally suited to provide the necessary support and directs that the administration include in future budget requests sufficient funds to cover the Institute's costs of providing such support.

DEFENSE ADVANCED MANUFACTURING TECHNOLOGY PARTNERSHIP

The committee believes that manufacturing technologies offer some of the greatest opportunities for the mutual leveraging of DOD and industry R&D resources. The technologies involved are generally dual-use and lend themselves to development by consortia. The Defense Department currently supports two advanced manufacturing technology consortia, SEMATECH and the National Center for Manufacturing Sciences.

This legislation would direct that $50.0 million of the total funding provided for manufacturing technology development shall be available to support at least three advanced manufacturing technology partnerships with industry. The committee directs the degree to which the advanced manufacturing technology proposed for development will help reduce health, safety, and environmental hazards associated with existing technology be included as a selection criteria.

The committee directs that the congressional reporting requirements for dual-use critical technology partnerships also be utilized for advanced manufacturing technology partnerships in fiscal year 1992.

MANUFACTURING EXTENSION PROGRAMS

The committee believes that there is serious cause for concern over the long-term growth of the U.S. manufacturing sector, and particularly with those firms employing less than 500 people that make up the foundation of the U.S. manufacturing base. These foundation firms are more likely to encounter significant difficulties in modernizing plant and equipment, in devoting enough resources to research in manufacturing technology, in adopting foreign technologies to their needs, and in dealing with an American workforce that exhibits a declining skill level. As a consequence, small and medium-sized manufacturers, an essential component of the defense industrial base, are often poorly equipped to meet the challenge of sophisticated foreign suppliers and are either going out-of-business or being acquired by larger foreign companies.

Recognizing the importance of this issue, in Section 823 of the Defense Authorization Act for Fiscal Year 1991, the committee directed the Secretary of Defense to promote improvements in the subtier defense industry through the use of manufacturing extension programs. Testimony received from Department of Defense witnesses indicates that, despite this legislative direction, the Defense Department has not increased its support of, or participation in, manufacturing extension programs.

This legislation would instruct the Secretary of Defense to establish a National Manufacturing Extension Program to improve the quality, productivity, and performance of U.S. manufacturing foundation firms. Under this program, the Secretary of Defense would provide matching funds to state and local governments and nonprofit organizations to support manufacturing extension programs with both government and private sector participation. This program would support making industrially-experienced engineers and specialists available to assist small and medium-sized manufacturers in solving production problems, disseminating information, boosting quality and productivity, improving training, and introducing better technological, business, and management techniques.

An interagency council, composed of members from the Defense Department, Commerce Department, Energy Department, Labor Department, NASA and the National Science Foundation, would prescribe policies and procedures for implementing the program, provide for coordination between the various departments and agencies of the federal government, provide a focal point for representatives from state and local governments and non-profit agencies, and be responsible for developing long-range strategic plans for the National Manufacturing Extension Program.

The committee is aware that a number of states have already initiated such programs. The proposed program would permit the states, localities, and non-profit groups to expand existing programs and to initiate new programs where none now exist. The committee intends that a wide range of programs be eligible, including on-site assistance, teaching factories, computer integrated manufacturing centers, and flexible manufacturing networks.

Under this program, eligible programs would apply for federal matching funds using a merit-based process prescribed by the interagency council. The committee intends that three key criteria be used to guide the allocation of federal funds. The first criterion is the potential effectiveness of the program including proposed use of multi-disciplinary approaches to provide the required support. Second is the efficiency of the service delivery, including how well the proposed program seeks to leverage the services provided by working through cooperative association and manufacturer networks. The third criterion is evidence of a significant industrial involvement, particularly the participation of large prime contractors or original equipment manufacturers and manufacturing equipment vendors in the planning, directing, delivery, and financial assistance for the program.

The committee fully intends that the National Manufacturing Extension Program be a full partnership between the Department of Defense and the Department of Commerce. The Commerce Department, through the National Institute of Standards and Technology (NIST) has already established a program of regional centers to assist small and medium-sized manufacturers. The Defense Department should take steps to ensure that it benefits from NIST's expertise and accumulated experience in undertaking this effort.

The committee is particularly concerned that the benefits of this program be directed at states and regions where small and medium-sized manufacturers are at risk due to chronic economic problems beyond their control. It directs the Secretary of Defense to ensure that an adequate level of financial assistance is furnished to programs conducted in these states and directs that such states be given a one-time grant, not to exceed $500,000, to support initial development of manufacturing extension programs.

The committee recommends $50.0 million for program element 78011D in fiscal year 1992 and $65.0 million in fiscal year 1993.

DEFENSE MANUFACTURING ENGINEERING EDUCATION ACT

The committee recognizes that engineering education has tended to neglect the areas of manufacturing and production process technologies during the second half of the twentieth century. Instead, it has emphasized education in fundamental engineering analysis to a much greater extent. While several U.S. universities have established education programs in manufacturing engineering, the number of adequately trained engineers that graduate from these programs does not begin to satisfy America's needs.

The committee believes that it is in the best interests of the United States, both in regard to its national security and its economic competitiveness, to support and promote manufacturing engineering education programs in American universities and colleges. This provision would direct the Secretary of Defense to provide merit-based grants to at least 10 universities and colleges to either establish new manufacturing engineering teaching and research activities, or to improve and expand existing manufacturing engineering programs. The committee authorizes $25.0 million for fiscal years 1992 and 1993 for this purpose.

The committee intends that, in time, these programs will produce a significant increase in the number of well-trained, fully-qualified engineers, managers, and teachers entering the American workforce. The committee intends that these programs cover all areas of manufacturing including those associated with metalworking, electronics, advanced materials, textiles, and any other area important to U.S. national security and economic growth.

The committee notes that most universities and colleges that have engineering curricula already include some instruction in manufacturing or industrial engineering. The committee does not regard, for the purposes of this legislation, that such education constitutes a manufacturing engineering education program. To be considered as such a program, the instruction offered must be a consolidated and integrated multi-disciplinary undertaking, focusing on the instructional component, with associated research and work-experience components that directly support the instructional component.

The committee is convinced that the success or failure of any manufacturing engineering education program depends on the commitment and involvement of both the university or college and its industrial partners. Such an involvement may include personnel exchange programs to inject the real world of manufacturing into the classroom environment. It may include formation of partnerships between groups of universities and industrial firms. But the industrial sector must recognize and demonstrate that their involvement in the program is in their best long-term interest, and that their participation in the program must extend beyond providing resources to include serving as an active partner in the learning process. The committee strongly recommends that industrial advisory boards be established as an adjunct to the management of all manufacturing engineering education programs funded under this provision.

Accordingly, the committee intends that in all instances the DOD grants not exceed 50 percent of the total required resources. The committee believes that the total resources provided from all sources should be sufficient to support the program until it can become self-sustaining, which should occur in three to five years after program initiation. While the Defense Department grants will be made on a one-time basis, the nature of the grant can allow for this funding to be periodically provided over the first several years of the programs. It should also be noted that the committee intends that the term "total resources" be taken to include both monetary support and other "in-kind" support, such as providing facilities, equipment, or no-cost staff support.

The committee does not specify the means that must be used to integrate the manufacturing engineering courses in the overall curricula of the university or college. Programs that either integrate new coursework and research into an existing curricula, or, alternatively, establish a new curriculum specifically targeted at manufacturing engineering are equally acceptable to the committee.

The committee does, however, recognize the merit of a multi-disciplinary approach to manufacturing education. Many successful manufacturing education programs include coursework in organization, finance, and management. The committee urges that special emphasis be given to selecting programs that encourage students to participate in cross coursework disciplines and in multi-disciplinary team activities to exercise their classroom learning experience.

The committee also recognizes that some of the best manufacturing practices are now found in foreign nations, especially Japan. The committee encourages favorable consideration of programs which contain an international perspective permitting both faculty and students to learn from advances in manufacturing technology and production process already implemented in these countries.

Recognizing that several U.S. universities have already established strong programs in manufacturing engineering, the committee suggests that mentor-protege type programs may offer one method of expeditiously upgrading the capabilities of other universities, four-year colleges, and community colleges that currently do not have any manufacturing engineering curriculum in-place. The committee encourages serious consideration of any proposal for such a collaborative effort.

The committee believes that the success of any program dedicated to increasing the quality and quantity of the American manufacturing professional workforce critically depends on the participation of top quality students and faculty. The committee strongly recommends that selection of universities and colleges to participate in this program reflect their ability to attract and retain top quality undergraduate and graduate students and the faculty needed to teach them.

Finally, recognizing that by the turn of the century, women, members of minority groups and disabled persons will form an essential and vital element of America's professional workforce, the committee strongly recommends that proposals which include a plan to achieve a significant level of participation among such persons be given the highest consideration.

MANUFACTURING MANAGERS IN THE CLASSROOM

This provision would direct the Secretary of Defense to establish a program, entitled the Manufacturing Managers in the Classroom program, to strengthen the capability of technical schools, community colleges, and institutions of higher education to serve the education and training needs of U.S. manufacturing firms. Under this program, the Secretary would provide matching funds to be used to support experienced manufacturing managers and experts from industry, federal laboratories, and other appropriate organizations in helping the school to identify education and training requirements, develop teaching materials, make classroom presentations, prepare and conduct seminars, act as liaison with manufacturing firms, counsel students and faculty, and perform any other appropriate task. Federal matching funds for this program would be competitively awarded. The committee intends for the Department of Commerce's National Institute of Standards and Technology (NIST) to be closely consulted in implementing this program.

The committee intends for the funds to be awarded on the basis of three key criteria. The first criterion, is the potential for contributing to the purpose of the program. Second is evidence that the proposed activities are appropriately sized and have sufficient quality to ensure a long-term improvement in the school's teaching ability. The third criterion is a strong involvement by industry, including regional firms.

DARPA COOPERATIVE AGREEMENTS AND OTHER TRANSACTIONAL AUTHORITY

Section 251 of the National Defense Authorization Act for Fiscal Years 1990 and 1991 authorized the Defense Advanced Research Projects Agency (DARPA) to enter into cooperative agreements and other transactions, as distinct from "grants" and "contracts". Under this provision, the authority would expire on September 30, 1991.

The committee remains convinced that all Department of Defense activities engaged in research and technology development can benefit from the flexibility provided by this provision in appropriate circumstances. This is particularly true in those instances in which the activity plans to engage in cooperative ventures with the private sector at the pre-competitive development stage. In these instances, the use of "other transactions" or "cooperative agreements" often shortens the time required to reach final agreement by a considerable amount.

Accordingly, this legislation would amend section 2271 of title 10, United States Code, to (a) broaden it to include both the Military Departments and DARPA, and (b) make the provision a permanent part of the statute.

DEFENSE INDUSTRIAL BASE

A recent report by the General Accounting Office states that "The overall extent of foreign sourcing and foreign dependency and their significance for national security is unknown". When questioned at committee hearings on the defense industrial base, official Defense Department witnesses have not disputed this conclusion. The committee recognizes that making an accurate, in-depth assessment of the extent of this problem will be difficult and require the expenditure of considerable resources. Nevertheless, the committee strongly believes that the Department should include in its industrial base planning effort gathering information and assembling a data base that would permit making such an assessment. The committee recommends a provision (sec. 807) that would direct the Secretary of Defense to prepare a plan for making and maintaining an adequate assessment of the Defense Department's foreign source dependency. This plan should include the Secretary's estimate of the funding required to execute it, and should be submitted to the Congress no later than March 15, 1992.

The committee is also concerned over the Defense Department's apparent lack of activity to remove barriers preventing a better integration of the U.S. commercial and defense industrial sectors. A recent project conducted by the Center for Strategic and International Studies (CSIS) concluded that a greater integration between the defense and non-defense sectors is not only feasible, but is essential to reducing weapon system costs. The study identified four primary areas that are driving a wedge between the commercial and defense business sectors: accounting and audit requirements, military specifications and standards, technical data rights, and unique contract requirements. Of these, unique DOD accounting requirements and audits appear to create the greatest difficulties.

Section 8~~07 would~~ also require the Secretary of Defense to undertake a comprehensive examination of all factors that inhibit greater commercial-defense integration, and to establish a plan of attack to remove these barriers. It also would request the Secretary to estimate near-term costs and longer term savings that could be expected if these barriers were removed. The results of this study, and the accompanying plan of attack, should be available for congressional review no later than September 30, 1992.

DEFENSE MANUFACTURING TECHNOLOGY

The committee finds that the Department of Defense's past practice of giving the Defense Manufacturing Technology (MANTECH) program high praise and then inadequately funding it continues in fiscal year 1992. The administration's amended budget request for fiscal year 1992 covering all MANTECH research and development activities totals only $97.0 million, a reduction of over $200.0 million from the combined funding provided for this activity in fiscal year 1991.

The committee does not need to restate the important role that manufacturing plays in maintaining America's national defense or economic growth. Senior DOD executives have already presented that argument. Nevertheless, the federal government has historically not provided support for the development of advanced manufacturing technology comparable with that provided by our major economic competitors. The committee clearly believes that now is not the time to make substantial reductions in support for the DOD MANTECH effort.

Convincing testimony was provided this year to the committee on the vital role that small U.S. tool and equipment companies often play in transferring manufacturing technology advances into production applications. The committee urges the Department to include, in structuring its MANTECH program, a balanced team approach that would team small and medium-sized tool and equipment developers with equipment and technology suppliers and prime contractor manufacturers throughout the life of the project.

Section 823 of the National Defense Authorization Act for Fiscal Year 1991 directed the Secretary of Defense to provide centralized guidance and direction to the Military Departments and Defense Agencies on all matters related to manufacturing technology. The Congress also directed the Defense Department to prepare a National Defense Manufacturing Technology Plan to provide guidance to the Military Departments and Defense Agencies on the goals, priorities, and approaches to be taken in the Defense Department's manufacturing technology program. While no specific date was included in this provision for submitting the plan, the committee anticipated that it would be completed in time to guide funding decisions for fiscal years 1992 and 1993. At the April 9, 1991 hearing by the Subcommittee on Defense Industry and Technology on manufacturing technology, the committee was informed that an interim plan was in the final stages of DOD review and should be soon available for committee review. The committee is therefore discouraged that no interim plan has yet been made available and that the anticipated completion date for the final plan is September 30, 1991. The committee holds the senior management of the Defense Department accountable to ensure that this planning process proceeds in an expeditious manner and is available to support the preparation of upcoming DOD budgets.

The committee recognizes the difficulty in changing the MANTECH program from a structure in which each Service and the Defense Logistics Agency has independently operated its own program to a fully consolidated, closely coordinated defense-wide program. Service independence may have been acceptable in the past but can no longer be tolerated in today's fiscal environment. Independent Service and component interests must yield to broader Department of Defense corporate interests. The committee directs the Office of the Secretary of Defense to take a firm lead in accomplishing such a consolidated and coordinated approach, and it expects the full cooperation of the military Services and Defense Agencies in preparing and implementing a DOD corporate National Defense Manufacturing Technology Plan.

This provision would amend Chapter 149 of title 10, United States Code, to require that the National Defense Manufacturing Technology Plan be submitted annually, not later than March 15. The plan shall cover all Defense Department manufacturing technology activities. Unless otherwise waived by the Secretary of Defense, no projects shall be undertaken and no funds may be obligated and expended in the fiscal year following submittal of the plan except as are included under this plan.

To oversee execution of the Defense Department's consolidated MANTECH program, the committee directs that a Joint Manufacturing Technology Office be established within the Office of the Secretary of Defense responsible for planning and resource allocation on all DOD MANTECH activities. To ensure that this office can effectively exercise management control over all aspects of the Defense Department industrial preparedness and manufacturing technology program, the committee consolidates all industrial preparedness and manufacturing technology funding under a single program element under the direct control of this project office. The committee recommends a consolidated authorization of $250 million in fiscal years 1992 and 1993 for MANTECH programs in all Services and agencies. Since no National Defense Manufacturing Plan has been completed, the committee directs that this funding be allocated to the military Services and Defense Agencies at levels generally consistent with their prior planning and sufficient to continue high priority on-going programs. The committee is especially interested in ensuring that the Defense Logistic Agency's on-going programs be supported at an adequate level.

FLEXIBLE COMPUTER INTEGRATED MANUFACTURING PROGRAM

The committee continues to support the application of modern technology to improving manufacturing processes in all areas. In past years, the committee has supported advanced flexible computer integrated manufacturing (FCIM) technology being developed under the Navy's rapid acquisition of manufactured parts (RAMP) program, at the Institute for Advanced Flexible Manufacturing Systems, and in other initiatives and undertakings. The committee has also continued to lend its strong support to the Computer-aided Acquisition and Logistics Support (CALS) program and to the Product Data Exchange System (PDES) program, which the committee believes are equally essential to the successful development and application of FCIM technology.

The committee is pleased to note that the administration shares its support for these important technologies. The committee notes that the most recent *Defense Critical Technologies Plan* included flexible manufacturing as its only new addition. The committee believes that FCIM technology is an important element of achieving advances in manufacturing technology in all areas.

The committee applauds the progress made by the Navy's RAMP program in applying advanced flexible manufacturing technologies to achieve reduced cost and production lead times in a wide variety of DOD depot-level operations. The committee believes that research and development should continue in this critically important area and is dismayed that the administration continues to omit any funding request for RAMP in its annual budget request.

Likewise the committee is pleased with the progress achieved by the Institute for Advanced Flexible Manufacturing Systems. This institute demonstrates to the committee the potential of two agencies, the Department of Defense and the Department of Commerce, joining together to support common goals to their mutual benefit. It believes that the type of support that the institute is giving to small and medium-sized manufacturing firms is essential to maintain America's competitiveness both in the defense and economic sectors.

Section 823 of the National Defense Authorization Act for Fiscal Year 1991 directed the Defense Department, in coordination with the Energy and Commerce Departments, to promote the use of computer-integrated manufacturing to improve quality and reduce production lead times and costs. The committee strongly supports the Department's activities in this area and directs that a letter report on this effort be provided to the Armed Services Committees of the Senate and the House of Representatives no later than December 30, 1991. This report should establish the relationship among the DOD FCIM strategy, the National Defense Manufacturing Technology Plan, and DOD flexible manufacturing development activities conducted as a part of the MANTECH program.

This provision authorizes a total of $21.5 million of additional fiscal year 1992 and 1993 funding under program element 78011D to support advanced flexible computer integrated manufacturing. Of this amount, a total of $11.5 million shall be made available to the Secretary of the Navy for the Rapid Acquisition of Manufactured Parts program. This amount is intended to continue research and development and to support the establishment of a RAMP–FCIM Center of Manufacturing Excellence. This Center would rapidly and effectively transfer RAMP–FCIM capabilities to depot-level maintenance facilities of all military Services and to provide those services with technical guidance and support during the initial operational and training period.

The committee is aware that the Army Material Command has decided to use RAMP technologies as a part of its Integrated Flexible Manufacturing Systems Initiative. The committee congratulates the Army on its decision to use a FCIM technology developed by the Navy and directs that of the total additional funding, $5.0 million be provided to the Secretary of the Army to support introduction of RAMP–FCIM technologies into Army maintenance depots. The committee directs the Department of Defense to investigate the potential for near-term use of the RAMP–FCIM capabilities in Air Force maintenance depots and requests that the Armed Services Committees of the Senate and the House of Representatives be informed of plans to involve the Air Force no later than December

31, 1991. The committee further directs that RAMP-FCIM technology be employed in the most effective manner across all Department of Defense applications, and that the lessons learned so far by the Navy in its development program be shared with other potential users towards the goal of developing a common, shared experience base.

The committee directs that of the total additional funding provided, $4.0 million shall be available as a grant to the Institute for Advanced Flexible Manufacturing Systems to continue its on-going activities.

U.S-JAPAN MANAGEMENT TRAINING

In it report (S. Rept. 101-384) accompanying the National Defense Authorization Act for Fiscal Year 1991, the committee directed the Secretary of Defense to establish a U.S.-Japan management training program. The purpose of this initiative was to establish a merit-based grant program to support programs in U.S. institutions of higher education to permit American scientists, engineers, and managers to study Japanese industry and technology management methods.

The committee also requested the Secretary of Defense to provide a letter report no later than December 31, 1990 on the plans and status for implementing the program. The requested report was provided on March 28, 1991. In it, the Department agreed that gaining greater insight into Japanese approaches to the management of technology was beneficial and stated that long-term benefit to U.S. defense capabilities would occur if a significant number of students and practitioners were educated in those approaches. Nevertheless, the fiscal year 1992 amended budget request contained no funding for this program.

This legislation would amend chapter 111 of title 10, United States Code, to make permanent the authority included in last year's committee report. The committee also provides $10.0 million for fiscal year 1992 and $10.0 million for fiscal year 1993 to continue this important effort. The committee intends that funding provided through these grants to selected institutions be sufficient to support their programs over several years, if necessary, until they are well established.

The committee notes that the selection criteria for the fiscal year 1991 awards stated that proposing institutions were expected to have established relationships with Japan's academic and R&D communities. This would appear to limit awards to on-going programs whereas the committee seeks to both support on-going programs and develop new programs wherever possible.

The committee believes that, with permanent authority, consideration should also be given to institutions with unique abilities. These abilities may include work with DOD or Department of Energy scientists, engineers, and managers and with institutions which could support development of already established relationships with Japan's academic and R&D communities if they were provided with resources.

DEFENSE SCIENCE, MATHEMATICS, AND ENGINEERING

Defense Master Plan

Section 843 of the National Defense Authorization Act for Fiscal Year 1991 directed the Secretary of Defense to identify what actions the Defense Department might take to improve education in the science, mathematics, and engineering skills necessary to meet the long-term national defense needs of the United States. It further authorized the Department to establish and carry out such actions at all levels, including elementary and secondary school systems. The legislation also directed the Defense Department to designate a single individual to be responsible for all matters related to science, mathematics, and engineering education and training.

Testimony provided by the Defense Department to the committee on May 15, 1991 restated the Department's understanding of the importance of science, mathematics, and engineering education. This testimony described actions now being undertaken by the Department, including the preparation of a science and engineering master plan.

The committee is encouraged by the Department's response but remains concerned that, given the past performance of the Department in performing similar planning efforts in other areas, this plan will not be expeditiously completed in the absence of a legislative requirement.

Accordingly, this provision would direct the Secretary of Defense to prepare a Defense Science, Mathematics, and Engineering Master Plan covering the Department's planned activities and funding for all levels of education for the next five years. The committee strongly believes that the Defense Department's plan to support and promote science, mathematics, and engineering education should fully support the six national education goals developed by President Bush following the Charlottesville, Virginia Education Summit held in September 1989. This plan should be the basis for defining the required efforts and their resource requirements to support the President's goals and to improve coordination within the Department and among federal agencies. Copies of this plan should be submitted to the Armed Services Committees of the Senate and the House of Representatives at the same time the President's fiscal year 1993 request budget is submitted.

Grants Program for Primary and Secondary Level Education

Section 247 of the National Defense Authorization Act for Fiscal Year 1991 authorized the Secretary of Defense to establish and conduct programs to improve education in science, mathematics and engineering skills necessary to meet the long-term national defense needs. It specifically included the authority to establish programs for the purpose of improving the mathematics and scientific knowledge and skills of elementary and secondary school students and faculty members.

Based on testimony received from the Defense Department at a hearing held this year, it is apparent that the Department has done little to address this serious problem or exercise the authority given it. According to data contained in the Report of the Federal

Coordinating Council for Science, Engineering, and Technology Committee on Education and Human Resources, DOD spending on pre-college education amounts to only one percentof the total amount spent to support science and engineering education as a whole.

The committee continues to believe that the Defense Department should take a much more active role in supporting pre-college education. Today there are many on-going activities to improve the education of our youth in all areas, but especially in mathematics and science subjects. The Department should join in these activities as a full partner.

Accordingly, this legislation would direct the Secretary of Defense to establish a grant program to support on-going programs, or to establish new programs, on a cost-share basis, specifically directed at improving the educational process in science and mathematics at the pre-college level. Funding would be authorized at $10 million for fiscal year 1992 and $15 million for fiscal year 1993 for these grants. The Secretary of Defense is to report to the Congress on actions taken to implement this direction. Defense Department Form 1414 for fiscal year 1992 should show this program as a congressional special interest program item.

IMPLEMENTATION OF GOALS FOR SMALL DISADVANTAGED BUSINESSES AND HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

Section 1207 of the National Defense Authorization Act for Fiscal Year 1987, as amended, establishes a five percent goal for the participation in DOD contracting by small business concerns owned and controlled by socially and economically disadvantaged individuals (often referred to as small disadvantaged businesses (SDBs)), historically Black colleges and universities (HBCUs), and minority institutions (MIs).

Progress toward the five percent goal has been improving, but the rate is slow. Statistics for fiscal year 1990 indicate that SDBs as prime contractors earned 3.4 percent of DOD prime contract dollars. This represents an increase of only one-tenth of one percent over the fiscal year 1989 level. Participation by HBCUs/MIs also needs improvement. In fiscal year 1990, they earned $50 million in DOD research work. The committee has taken several significant actions to accelerate the rate of progress toward the goal.

First, section 831 of the National Defense Authorization Act for Fiscal Year 1991 established a Pilot Mentor–Protege Program to foster voluntary business development relationships between major DOD contractors and SDBs. The committee's recommendation for fiscal years 1992 and 1993 would provide $15.0 million for this program in each year.

Second, section 832 of the fiscal year 1991 Act authorized the Secretary to provide a broad array of "infrastructure" assistance to HBCUs and MIs to enhance their capability to perform DOD contract and grant work for research and development. The provision also required the Secretary to establish a subgoal for HBCU/MI participation in the section 1207 program to permit better congressional oversight of performance by the military Services and Defense Agencies. The committee's recommendation would provide $15.0 million for infrastructure assistance in each year.

Third, in light of the DOD report indicating that some DOD components have been less successful than others in achieving the section 1207 goal, the conference report (H. Rept. 101-923) accompanying the National Defense Authorization Act for Fiscal Year 1991 directed the Department to report the performance of the Services and Defense Agencies by their major buying commands. The committee emphasizes the importance of this data and awaits the Department's 1991 report on the section 1207 program disaggregating the data by major commands.

The committee expects the Department to implement both of these programs aggressively, and invites reprogramming requests that exceed the authorized amounts. The committee also invites requests for future funding for these programs as part of the annual budget submissions for fiscal year 1994 and future fiscal years.

STATUS OF THE DIRECTOR OF DEFENSE PROCUREMENT

Section 807 of the National Defense Authorization Act for Fiscal Year 1991 authorized the Under Secretary of Defense for Acquisition to delegate his responsibility to represent the Defense Department at the Federal Acquisition Regulatory (FAR) Council to an official no lower than an Assistant Secretary of Defense. The Under Secretary delegated his responsibility to the Assistant Secretary of Defense for Production and Logistics.

Recently, the Under Secretary has reorganized his office and transferred responsibility for acquisition policy matters from the Assistant Secretary to the newly-established Director of Defense Procurement. In recognition of this reorganization, the committee recommends a provision that would authorize the Under Secretary the authority to delegate his FAR Council responsibilities to the Director of Defense Procurement.

LIMITATION ON EXTENSION OF RESEARCH AND DEVELOPMENT CONTRACTS

Section 2352 of title 10, United States Code, provides that contracts for research and development may be entered into for a period of up to five years, and may be extended for five additional years. In view of the complexity of modern weapons systems, it is not unusual for research and development efforts to be quite lengthy. The 10-year period is disadvantageous to the government, because it could require the government to terminate contracts, with associated termination costs, and to negotiate new contractual terms at the end of that period. The committee recommends a provision that would permit the Department to extend a research and development contract for a one-year period after providing Congress with notice and an explanation of the need for the extension. Any renewal of the extension would be subject to the same limitations.

DEFENSE ACQUISITION WORKFORCE AMENDMENTS

The Defense Acquisition Workforce Improvement Act, which was contained in the National Defense Authorization Act for Fiscal

Year 1991, requires major changes in the organization and management of DOD personnel in acquisition positions. In addition, the legislation authorized important new benefits for the acquisition workforce. These benefits include the authority to provide special pay for individuals in critical positions, use of student loan repayments as a recruitment incentive, payment for training leading to an educational degree, waiver of the penalty against further government service, and establishment of intern and scholarship programs. The legislation, which charted an ambitious agenda, placed responsibility for management of this personnel program under the Under Secretary of Defense for Acquisition.

To date, although there has been vigorous planning activity at the staff level, very few provisions of last year's legislation have been implemented. The committee is seriously concerned about the slow pace of the Department in implementing the important reforms, particularly the benefits, authorized by last year's legislation. At a time when major reductions in defense spending and force structure could have an adverse effect on employee morale, these incentives can provide an important means of attracting and retaining a high quality acquisition workforce.

In the committee's view, the addition of these personnel responsibilities to the charter of the Under Secretary of Defense for Acquisition stretches that official's span of control too far. The position of the Under Secretary has been difficult to fill and to keep filled. In the five years since the position was created, there have been four Under Secretaries. The challenges of the position are daunting: reinvigorate America's industrial and technology base; streamline the acquisition process; guard against fraud, waste, and abuse; and, most important, provide our men and women in uniform with high-quality equipment at low cost in a timely manner. It is impractical to ask an official with this agenda to also serve as the Department's senior personnel manager for a large portion of the DOD workforce.

Within the Department of Defense, responsibility for personnel policy rests with the Assistant Secretary of Defense (Force Management and Personnel). The Office of the Assistant Secretary is staffed and equipped to handle the difficult civilian and military personnel issues that must be addressed in reforming the acquisition workforce.

The committee recommends a provision that would amend last year's legislation to transfer these personnel responsibilities from the Under Secretary of Defense for Acquisition to the Assistant Secretary (Force Management and Personnel). The Under Secretary would still have a significant coordinating role in terms of the effect of personnel management on acquisition policy, but would be relieved of the management responsibilities for these personnel issues. In addition, this provision would provide the Department with greater flexibility in tailoring qualification requirements for acquisition positions without the rigid standards specified in last year's law.

In recognition of the difficulty that the Department has faced in managing these personnel issues through the acquisition structure, this provision also would authorize the Secretary of Defense, if he deems it necessary, to postpone the effective date of various requirements established in last year's laws by not more than one year.

PROCUREMENT TECHNICAL ASSISTANCE COOPERATIVE AGREEMENT PROGRAM

The committee has supported the procurement technical assistance program since its establishment in 1985. The program provides cost-effective technical assistance to lower-tier subcontractors in the industrial base supporting the national defense. The committee authorizes $9.0 million for the program in both fiscal years 1992 and 1993.

EQUAL APPLICATION OF POST-EMPLOYMENT RESTRICTIONS

In the Ethics Reform Act of 1989, Congress attempted to clarify post-service employment restrictions on government officials by establishing uniform rules applicable throughout the executive branch. The legislation, however, did not repeal the various laws applicable to specific departments or classes of employees. Instead, those laws were suspended for a year to permit time for consideration as to whether such laws should be repealed or applied on a government-wide basis.

Last year, in the National Defense Authorization Act for Fiscal Year 1991, Congress extended the suspension of these laws through May 31, 1991. As noted by the conferees, this action was taken "with a view towards prompt action by the 102nd Congress to review and clarify these laws." No legislative action has been taken yet, and the disparate collection of laws—which primarily affect the Departments of Defense and Energy—have come back into effect.

Post-employment restrictions have an appropriate place in the structure of conflict of interest laws that enhance public confidence in the fairness of governmental practices. Such laws, however, also can have a very negative effect on the ability of government to attract and retain high quality personnel. Therefore, it is essential that such laws be carefully drawn, clearly written, and fairly applied. The laws that were temporarily suspended by the Ethics Reform Act of 1989 do not meet that test.

The serious nature of the current situation has been underscored by Stephen Potts, Director of the Office of Government Ethics:

> In certain areas, the ethics rules have become so complicated that, frankly, I don't believe anyone can really understand them. Little by little, rule by rule, we have addressed a problem here, another problem there, with a quick statutory fix, stacked one on top of another until we have reached the point that even an employee who sincerely wants to follow the rules doesn't have the remotest chance of understanding them so he can follow the rules. . . . .
>
> [F]or a former DOD official, there are 10 possible restrictions. Then, if we . . . look at retired military officers who are also procurement officials, we are going to pick up a new batch of restrictions that apply to them. So, for a retired regular military officer, we end up with as many as 12 different post-employment restrictions.

The committee notes that the Governmental Affairs Committee is reviewing the current government-wide restrictions in the Office of Federal Procurement Policy Act to determine whether there is a need for additional government-wide legislation. The Armed Services Committee believes that this is a worthwhile review, and will work closely with the Governmental Affairs Committee should that committee decide that further legislation is needed. In the meantime, it is imperative that prompt action be taken to eliminate the confusing layering of legislation applicable only to Department of Defense and Department of Energy personnel. The committee recommends a provision that would rectify this problem by repealing those laws that apply only to DOD and DoE personnel, rather than on a government-wide basis.

REAUTHORIZATION OF BOND WAIVER TEST PROGRAM

Section 833 of the National Defense Authorization Act for Fiscal Years 1990 and 1991 required the military Services to make every reasonable effort to ensure that not less than 30 construction contracts in each of fiscal years 1990 and 1991 are awarded to participants in the Minority Small Business and Capital Ownership Development Program of the Small Business Administration (MSB/COD Program) and to make use of the authority provided in section 7(j)(13)(D) of the Small Business Act (15 U.S.C. 636(j)(13)(D)) to waive bonding requirements for federal construction contracts.

This provision was enacted to provide a MSB/COD Program participant the opportunity to demonstrate its performance capabilities when the firm is unable to obtain required bonding from private sources. Successful performance of these government contracts should enhance the firm's overall qualifications to obtain bonding for future work.

The committee has received a comprehensive interim briefing from the General Accounting Office (GAO) on the operation of the DOD bond waiver program. Based on this briefing, the committee believes that, while a first step has been made in implementation of section 833, much remains to be done.

DOD and SBA have exercised the authority provided in section 833 so that, while the goal has been assigned to DOD, SBA has the authority to waive the bond. Operating in this manner, from November 1989 to March 1991, the SBA approved bond waivers in eight DOD contracts worth $2.4 million and denied waivers in two projects. In comparison, 3,005 construction contracts were awarded by SBA during this same period that met the criteria for the granting of a bond waiver to a MSB/COD Program participant, i.e., award value of $3.0 million or less. These contracts had a combined value of $1.2 billion.

While the GAO noted several reasons for the Department's inability to fully implement section 833, the committee believes that among the most important are: (1) the SBA has retained exclusive authority to waive the bond; (2) SBA implementing regulations require an extraordinary degree of coordination between the SDB, DOD, the Services, and the SBA; and (3) the lack of senior management attention (except the Air Force) to this program.

To provide an additional opportunity for the Department to fully implement the bond waiver program, the committee recommends a provision that would extend this program through fiscal year 1993. The Secretary of Defense would be directed to make every reasonable effort to award 45 projects using the bond waiver authority.

Increasing the goal is warranted since operation of the program over the next two years should be smoother than in the last two years. The Department and SBA administrators have spent much of the last two years resolving administrative obstacles that have impeded attainment of the goal.

This provision would also expressly authorize the Secretary of the Air Force to exercise the authority to waive bonds granted under the Small Business Act (15 U.S.C. 636(j)(13)(D)). This will test whether the implementation of the bond waiver program can be improved by vesting the authority to waive the bond with an agency having contracting opportunities and the ultimate responsibility for their completion, rather than leaving it with the SBA. This provision would also authorize the Secretary of the Air Force to make the final source selection decision and award the contract when the Secretary grants the surety bond waiver.

The committee urges the Secretary of the Air Force to designate the Director of the Air Force Small and Disadvantaged Business Utilization as the focal point for the implementation of this new authority. The committee notes that the Air Force Office of Small and Disadvantaged Business Utilization under its new director has demonstrated a renewed enthusiasm for implementing a comprehensive small business program to make small firms a more integral part of the industrial base supporting Air Force programs. The committee directs the Air Force to provide the necessary resources to fully implement this initiative.

Finally, the committee requests the General Accounting Office (GAO) to continue monitoring the implementation of the test program for use of bond waiver authority, with special emphasis on the implementation of the authorities granted to the Secretary of the Air Force. The GAO report, including the views of the Secretary of the Air Force and the Secretary of Defense, shall be communicated to the Committees on Armed Services and Small Business of the Senate and the House of Representatives not later than March 1, 1994.

IMPROVED ACCESS TO PAYMENT BONDS BY POTENTIAL SUBCONTRACTORS AND SUPPLIERS ON CONSTRUCTION CONTRACTS

The Miller Act requires that the prime contractor on any federal construction contract greater than $25,000 provide a payment bond as a payment guarantee to subcontractors (including suppliers) for work performed.

Although the bond is required for the protection of subcontractors, under current procedures it is difficult for a subcontractor to obtain a copy of the payment bond. The committee recommends a provision that would direct the Secretary of Defense to issue regulations requiring that a copy of the payment bond be furnished to each potential subcontractor and supplier by the contracting officer upon request. Providing access to this information will enable a company to decide whether to serve as a subcontractor, to make inquiries related to the status of assets pledged as collateral, to ensure that corporate sureties are approved by the Department of Treasury, and to report deficiencies to the contracting officer.

A separate element of payment protection afforded to construction subcontractors (including suppliers) is provided by the Prompt Pay Act, which requires that prime contractors and all higher-tiered subcontractors seeking payment under a construction contract must certify that all payments to subcontractors have been made from previous government payments and timely payments will be made from the proceeds of the payment covered by the certification. Despite the certification requirement, payment problems persist and some subcontractors are not being paid.

To ensure that senior management attention is focused on this problem, the committee recommends that the Department of Defense Inspector General submit a report to the Secretary of Defense on payment protection for subcontractors. The report should assess the extent to which available judicial and administrative remedies (including suspension and debarment procedures) have been used or recommended for use by Department officials to deter false statements relating to payment bonds required by the Miller Act and certifications concerning requests for payment governed by the Prompt Pay Act.

The report should include a review of the use of the Program Fraud Civil Remedies Act of 1986, the False Claims Act, the Civil False Claims Act, and suspension and debarment procedures as well as other appropriate judicial and administrative remedies that may be available to the Secretary. The Inspector General shall include, as appropriate, recommendations to improve the effectiveness of these remedies as deterrents to false statements by sureties posting Miller Act bonds and by contractors requesting payments under the Prompt Pay Act. The report shall pertain to actions taken during the period October 1, 1991, through February 1, 1993 and shall be submitted to the Secretary by April 1, 1993.

CERTIFIED COST AND PRICING DATA THRESHOLD CLARIFICATION

Section 803 of the National Defense Authorization Act for Fiscal Year 1991 increased the threshold for the submission of certified cost and pricing data to $500,000 for all contracts entered into after December 5, 1990. It did not address subcontracts under contracts in effect before December 5, 1990. The committee recommends a clarifying amendment, effective December 5, 1991, that would apply the increased threshold to all subcontracts to contracts entered before December 5, 1990, where the contracting officer is requested to amend the prime contract to apply the increased threshold.

SEVERANCE PAY FOR FOREIGN NATIONALS

U.S. contractors providing services overseas to members of the U.S. armed forces are required by contract to abide by host nation laws, including requirements mandating severance payments to employees. Because of the limitations in 10 U.S.C. 2324(e)(1)(M) and (1)(N), severance payments to foreign nationals above that customarily paid to similar employees in the United States are not treated as allowable costs. In practice, the difficulty of determining the customary pay for U.S. employees often means that contractors overseas bear the full liability for severance payments to foreign nationals they employ.

Recent plans for significant closures of U.S. bases overseas makes this an especially acute problem. In addition, service members and their dependents face the loss of services that are an important contribution to their quality of life if contractors continue to bear the liability for these costs.

The committee recommends a provision that would authorize the Secretary of Defense to waive the prohibitions on the reimbursement of severance payments under 10 U.S.C. 2324(e)(1)(M) and (1)(N) if the Secretary determines that application of the limitations would jeopardize the continuation of important support functions for service members, the contractor has taken action or established a plan to minimize the payment of severance pay, and such payments are necessary to comply with the law of the host nation and are generally applicable to businesses of that nation.

The committee intends that severance payments include payments made under a so-called "social plan" that is negotiated between the contractor and its employees in accordance with host nation law. The committee directs the Secretary to develop procedures to notify overseas contractors in advance of base closures to allow for risk management of severance payments by contractors.

ALTERNATIVE PERSONNEL MANAGEMENT SYSTEM

The Civil Service Reform Act of 1978 authorized the Office of Personnel Management (OPM) to permit federal agencies to conduct demonstration projects intended to determine if changes in policies or procedures would improve personnel management. Two U.S. Navy laboratories, the Naval Weapons Center (NWC), China Lake, California, and the Naval Ocean Systems Center (NOSC), San Diego, California, initiated such a demonstration project in July 1980. Subsequently, the Department of Commerce undertook a similar demonstration at the National Bureau of Standards. By all accounts, all of these demonstrations have been fully successful in accomplishing their objectives. At each site, there has been an improved ability to recruit and retain employees, to implement simpler and faster classification procedures, and to forge stronger supervisor-worker links in performance appraisal and pay compensation matters. In general, there is widespread recognition that there has been an overall increase in management's awareness of their responsibilities in personnel management and an improvement in their subsequent performance.

Based on the outstanding results achieved, the original five-year demonstration programs were extended twice by Congress and are now set to expire in 1995. The Defense Department is, however, now reorganizing its in-house laboratories into centralized warfare centers. The committee understands that the Naval Weapons Center and the Naval Ocean Systems Center will be consolidated with other R&D activities and lose their individual identities.

The committee is concerned that under this reorganization the Department of Defense or Office of Personnel Management may decide that the authority granted to establish these demonstrations, as subsequently extended under Public Law 98–224 and 100–566 would be invalidated. The committee feels that, since both NWC and NOSC have been operating under the alternative personnel management systems for over 12 years, any attempt to return to pre-demonstration personnel management systems would be extremely detrimental to the operation of both of these facilities and the morale of all their employees.

Accordingly, even though the current authority to operate under the alternative personnel management system does not run out until September 30, 1995, the committee believes that it is appropriate at this time to make the authority establishing these alternative personnel management systems permanent and to clarify that Congress intends that this authority be extended to these two sites under the Navy R&D center consolidation. This provision would amend section 4 of Public Law 100–56 to accomplish this objective.

OPERATIONAL MANPOWER REQUIREMENTS

Section 2434 of title 10, United States Code, prohibits the Secretary of Defense from approving full-scale development of a major defense acquisition program unless an independent cost estimate is conducted and unless the Secretary submits "a manpower estimate of the program to the Committees on Armed Services of the Senate and House of Representatives at least 30 days in advance of such approval."

The committee believes this provision provides critical discipline on the weapons acquisition process at a time of shrinking resources. The committee notes, however, that the bulk of the reports received to date impose no net change on the civilian or military personnel end-strengths of the Military Departments.

In an effort to eliminate unnecessary reporting requirements, the committee recommends a provision that would amend section 2434 to provide an exemption to the reporting requirement. This section would permit the Secretary of Defense to waive the operational manpower requirements report if the Service Acquisition Executive for the system in question certifies to the Secretary that the system when fielded will produce no net effect on the civilian or military personnel end-strengths of the Military Department. The exemption does specify that all subsequent Selected Acquisition Reports on the exempted weapon system shall note the manpower estimate certification.

CARBONYL IRON POWDERS

Section 2507(e) of title 10, United States Code (enacted into law by section 835 of the National Defense Authorization Act for Fiscal Year 1991), requires that only domestically manufactured carbonyl iron powders may be used in a system or item procured by or provided to the Defense Department. The provision authorizes the Secretary of Defense to terminate this restriction after September 30, 1994 if he determines that it is not in the national interest. Also, the term "domestically manufactured" is defined to mean manufactured in a facility located in the United States or Canada by an entity more than 50 percent of which is owned or controlled by U.S. or Canadian citizens.

Since this provision was enacted into law, a great deal of concern has been raised over its potential effects. In particular, the provision creates a monopoly for the single U.S. manufacturer of this material. The committee is concerned that the price, quality, and delivery of materials to the Defense Department or its contractors could be unfairly controlled by a monopoly producer. Another concern with section 2507(e) is that its bar on foreign ownership discourages foreign-owned manufacturers of carbonyl iron powders from establishing a production facility in the United States or Canada. The committee does not believe that such a prohibition on foreign ownership is justified in this case.

In light of these concerns, the committee recommends a provision that would amend section 2507(e) in two ways. First, it would advance the date after which the Secretary of Defense may terminate this restriction from September 30, 1994 to September 30, 1992. Second, it would allow a foreign-owned manufacturing facility located in the United States or Canada to supply carbonyl iron powders to the Defense Department or its contractors.

ADVISORY COMMITTEE ON RIGHTS IN TECHNICAL DATA

Balancing contractor and government rights in technical data is a problem that has concerned Congress, DOD and industry throughout the 1980s. Since 1984, the Congress has significantly amended the statute on technical data (10 U.S.C. 2320) three times. An interim regulation has been in effect since October 1988. The absence of a final regulation reflects deep divisions as to the appropriate balance of these interests.

The committee recommends a provision that would establish an Advisory Committee on Rights in Technical Data in an effort to resolve current differences. The committee would be composed of 16 members, half from government and half from the private sector. The committee would submit a report containing a proposed regulation by May 1, 1992. The Secretary of Defense would be required to give thorough consideration to the Advisory Committee's proposal, and issue a final regulation by June 1, 1992.

The committee intends that the Secretary ensure that other agencies of government with a significant interest in technical data rights, such as the Office of Federal Procurement Policy, are represented. To ensure the recommendations of the advisory committee receive full consideration, the Department of Defense should not issue any comprehensive revisions to the current regulations on technical data until the work of the advisory committee is completed.

DEFENSE CRITICAL TECHNOLOGIES PLAN

The third annual *Defense Critical Technologies Plan* was issued on May 1, 1991. The committee commends the Defense Department on the progress they have over the past year in preparing this plan and especially in the strong participation of industry evident in it.

The committee notes, however, that while the plan has continued to grow in size, it still does not provide an adequate road map to guide either DOD or defense industry critical technology development activities.

In testimony given to the Subcommittee on Defense Industry and Technology on March 28, 1990, the Director, Defense Research and Engineering (DDR&E) said he hoped that the Department of Defense would have a defense science and technology strategy ready within the next year, and possibly sooner. The 1991 *Defense Critical Technologies Plan* contained what might be characterized as a summary technology base master plan but no long-term investment strategy was evident. At the same hearing, the DDR&E testified that one of the difficulties of managing and tracking critical technology funding is that the funds are distributed over a large number of program elements organized around military capabilities rather than technology areas.

The committee appreciates this difficulty in understanding the actual level of funding associated with any individual critical technology. It strongly recommends that the Defense Department, in its upcoming budget preparation cycles, establish new program elements in the technology base (6.1 and 6.2) accounts that are directly related to each critical technology area instead of continuing to intersperse the funding among a large number of different program elements.

In addition, the committee's review of the critical technology funding information contained in Annex A of the plan shows that a single military Service or Defense Agency dominates the funding in many instances for a particular critical technology. The committee again recommends that the DDR&E focus DOD management accountability for accomplishing the technology development objectives as set forth in the latest plan by designating one service or agency as a lead activity. That would appear to be an especially straightforward task for those technologies in which funding is already concentrated under one Service or agency.

Finally, the committee must again urge the Defense Department to make this document entitled a *Defense Critical Technologies Plan* a true plan. This means that milestones be defined to permit progress to be assessed, and resource allocations be established to indicate how dollars, people, equipment, and facilities will be used, both in DOD and in industry, to attain these objectives. The committee recommends that in the preparation of the fourth *Defense Critical Technologies Plan,* more attention be placed on this effort and less on the descriptive information that continues to dominate the plan's contents.

DEPARTMENT OF DEFENSE GRADUATE FELLOWSHIP PROGRAM

The committee recommends $20.0 million in fiscal year 1992 and $22.0 million in fiscal year 1993 for support of the National Defense Science and Engineering Graduate Fellowship Program established under chapter 111 of title 10, United States Code. Of this amount, $5.0 million shall be available each year to fund fellowships to students who are studying to obtain a graduate degree in an area related to manufacturing engineering.

DEFENSE RESEARCH AT UNIVERSITIES

University research programs sponsored by the Department of Defense constitute a vital national asset, and have contributed immeasurably to American scientific and technological leadership. The research performed in universities and colleges has been the basis for many of the weapon system technological advances that contribute to America's unmatched defense capability. Defense support of university research is also a significant factor in supporting graduate student enrollment and in developing America's next generation of faculty in science, mathematics, and engineering. It has contributed to several Nobel Prizes won by Americans and has resulted in thousands of published scientific papers and patent awards every year.

The committee believes that the investment that the Department of Defense has made in university research over the past five decades has been paid back many times over, and that continuing this support is essential to maintaining the national defense. The committee further believes that the research carried out in U.S. colleges and universities is a key to maintaining the Nation's technological superiority in the face of mounting international competition. While recent reviews of university indirect cost reimbursements have raised legitimate issues, the contributions made by university scientists and researchers remain unquestioned.

The committee is pleased to note the aggressive action taken by the Department of Defense to strengthen overhead cost controls for federally sponsored research at universities. The committee supports the Department's efforts to improve its controls and contract administration, but is also aware that these overhead costs contribute significantly to building and maintaining the infrastructure that makes this university scientific research possible. Adequate research facilities and equipment are essential to the effectiveness of defense-supported science and to the training of future generations of scientists and engineers. While government-reimbursed overhead costs must be properly allocated to research programs, the committee recognizes that support of a university's infrastructure, as well as support of its scientists, are both necessary ingredients for an effective research establishment.

ADVANCED MATERIALS SYNTHESIS AND PROCESSING

The synthesis and processing of advanced materials using more cost-effective methods is a crucial enabling factor for developing virtually all critical technologies. Advanced materials development and processing technologies are prominent in many recently released reports, including the report of the National Critical Technologies Panel, the *Defense Critical Technologies Plan,* the Commerce Department Emerging Technologies Report, and reports issued by the Council on Competitiveness and the Aerospace Industries Association.

The committee directs the Secretary of Defense to enter into at least three advanced materials synthesis, processing, and commercialization partnerships with the private sector, state and local governments, and institutions of higher education. The committee intends that these partnerships facilitate the development and commercialization of advanced materials and the processes used to produce them. These partnerships are intended to address the significant problem of reducing costs associated with the application of advanced materials in both defense and commercial products. They are also aimed at encouraging collaboration among federal government laboratories, U.S. industry, U.S. universities and colleges, and state governments in these endeavors, including identifying and mitigating environmental hazards associated with advanced materials production.

The committee intends that the selection of the organization of these partnerships, including the designating of lead organizations, should be left to the members. The committee anticipates that, in most situations, a private sector organization will serve in that capacity. Federal government funding shall not exceed 50 percent of the total required resources. Non-federal contributions can include the fair market value of equipment, services, materials, technology transfer activities, and other assets.

The committee intends that a merit-based process be used to select partnerships participating in this program. Criteria to be used in that process include evidence that the partnership can develop methods and procedures for cost-effective synthesis and processing; and methods for (1) non-destructive test and evaluation; (2) predicting and monitoring advanced materials responses to processing and manufacturing methods; (3) predicting the reliability of components made of such materials during in-service usage; and (4) educating and training personnel engaged in the processing, fabrication, and manufacturing of advanced materials.

INTERNATIONAL COOPERATION IN ADVANCED MANUFACTURING TECHNOLOGY

The committee is convinced that the Defense Department can and should benefit from international cooperation in advanced manufacturing technology. The committee notes that many studies and reports, issued both by government and industry, have argued convincingly that foreign institutions have achieved a leadership position in the development and application of many advanced manufacturing technologies.

The committee therefore directs that $5.0 million of the funding authorized and appropriated for manufacturing technology development be made available to support international cooperative efforts. The Japanese Intelligent Manufacturing Systems (IMS) proposal and, in particular, research and development test cases carried out under the proposed IMS feasibility study may be areas that merit consideration for such support. Any bilateral activities carried out under the aegis of the Systems and Technology Forum with Japan, or similar arrangements with NATO and other allies, would also merit consideration for such support. The committee expects that industry and other governments will contribute to such activities and specifies that the federal government share shall not exceed one-third of the total cost of any such cooperative activities.

ADVISORY PANEL ON STREAMLINING AND CODIFYING ACQUISITION LAWS

Section 800 of the National Defense Authorization Act for Fiscal Year 1991 directed the Department of Defense to establish an Advisory Panel on Streamlining and Codifying Acquisition Laws. The goal of the Panel is to build upon the general principles enunciated by the Packard Commission and Secretary Cheney's Defense Management Report (DMR), and develop a pragmatic set of recommended changes in the acquisition laws. The Panel, which is to be composed of recognized experts in acquisition laws and procurement policy, is required to complete its work by December 15, 1992.

The committee believes that this is an important effort, and is disappointed that the Department has not moved more quickly to establish and staff the Panel. The committee has been assured, however, by Deputy Secretary Atwood and Under Secretary of Defense for Acquisition Yockey that the Department fully supports the work of the Panel. Pending completion of the Advisory Panel's report, the committee intends to focus its acquisition policy activities on incremental changes in the laws, such as the matters set forth in title VIII of the committee's bill, and on oversight of the Department of Defense's implementation of recent legislative initiatives and the DMR.

INTEGRATED FINANCING PLAN

Current law (10 U.S.C. 2330) requires the Department of Defense to submit annually an integrated financing plan that ensures that its finance policies are structured to meet DOD long-term needs for industrial resources and technology innovation.

At a hearing on the future ability of the industrial base to support the national defense, the Under Secretary of Defense for Acquisition testified that he "strongly supported" the need for an integrated financing plan. Paul Nisbet, a respected Wall Street analyst, testified that it is "an absolute necessity if the effects of new laws, other legislation, and administrative actions on the industrial base for defense are to be estimated in advance."

Faced with declining defense budgets through the 1990s, the Defense Department must manage its financing policies and assess their impact on the industrial base supporting defense much more effectively than it has done in the past. An integrated financing plan can assist management in this process. The committee is disappointed that the Department, in its actions, does not appear to share the Under Secretary's commitment to the usefulness and need for this plan. The committee has not yet received the Department's 1991 plan.

In the absence of a plan for the current fiscal year, the Department has made a number of changes in its financing policies. For example, progress payment rates to large, prime contractors have been increased by 5 percent; DOD ceilings for independent research and development are scheduled to increase by about 4 percent per year in fiscal years 1991 and 1992; the use of fixed price development contracts has been limited; and DOD has eliminated the requirement for contractors to capitalize their special tooling and test equipment costs. While the committee anticipates these changes will have a positive impact, it appears that they have been made on an ad hoc basis without an assessment of their cumulative impact on the industrial base that supports the national defense. The extent to which similar changes are needed in the future and their cumulative impact should be considered in the Department's annual integrated financing plan.

COMPREHENSIVE SMALL BUSINESS SUBCONTRACTING PLANS

Section 834 of the National Defense Authorization Act for Fiscal Years 1990 and 1991 authorized a three-year test program to allow certain major defense contractors to negotiate small business and small disadvantaged business subcontracting plans on a company-wide basis. This test program is intended to determine whether such plans can reduce administrative burdens currently imposed on prime contractors and result in increased subcontracting opportunities for small and small disadvantaged businesses. Section 834 was enacted into law at the request of the Defense Department, with the support of major prime contractors. On the other hand, small businesses and small businesses owned and operated by socially and economically disadvantaged individuals viewed it with grave concern.

Many major prime contractors approached the test program with caution. Financial uncertainties were created by the requirement that company-wide subcontracting plans would be subject to the imposition of liquidated damages if the prime contractor failed to make a "good faith effort" to attain the subcontracting goal that it negotiated with the Department. Whether reasonable or not, this uncertainty centered on how a company-wide goal (and the attendant potential for liquidated damages) would be apportioned to the prime contractor's individual DOD contracts at the end of the test program.

Even though the Department has never imposed liquidated damages against any contractor, it appeared in 1990 that no contractors would participate in the test program. To encourage the test program to go forward, the committee agreed to eliminate the applicability of the liquidated damages provision to the company-wide subcontracting plan test program. The committee notes that while this perceived impediment has been eliminated, only one of the 11 firms that expressed an interest in participating in the test program has negotiated a company-wide subcontracting plan with the Department.

The Air Force Office of Small and Disadvantaged Business Utilization and the Aeronautical Systems Command sponsored an Air Force/Industry Roundtable to examine issues of mutual concern in the implementation of the test program. The committee believes that such discussions can promote a better understanding of program objectives and impediments to industry participation in the program. The committee encourages the Secretary of Defense to sponsor a similar DOD-wide roundtable discussion or direct the other Military Departments to sponsor such discussions with a view to increasing the number of negotiated company-wide subcontracting plans.

Many in industry asserted that company-wide plans offered the twin goals of providing more subcontracting opportunities to small businesses and small businesses owned and operated by socially and economically disadvantaged individuals while reducing the administrative burden imposed on prime contractors that negotiate subcontracting plans on a contract-by-contract bases. The test program represents a sound response to a problem DOD and many prime contractors brought to our attention. The committee strongly encourages greater contractor participation in the program to determine whether these goals can be attained.

DEFENSE ENTERPRISE PROGRAMS AND MILESTONE AUTHORIZATIONS

In 1986, Congress authorized the Department of Defense to establish defense enterprise programs and authorized milestone funding authorizations for those programs. The purpose of the defense enterprise program reform was to streamline the management process and to provide the tools required by program managers to manage major acquisition programs. The goal was to create a management model for increasing the authority and accountability of program managers. The defense enterprise program provisions were developed based on extensive interviews with program managers.

One of the key elements of the defense enterprise program is a grant of authority to waive unnecessary rules and regulations to free the program manager to manage programs with a minimum of unnecessary guidance and restriction. The Department conducted a survey of those rules and restrictions that program managers wanted removed. Of over 3,000 rules and regulations, only 11 were recommended for elimination, and they represented the reports required by Congress and the Office of the Secretary of Defense to conduct oversight!

The provision establishing milestone authorizations was designed to provide funding and programmatic stability for defense enterprise programs. Congress would authorize funding for entire phases of the acquisition process instead of annual increments. In exchange for longer-term funding stability, the Department would establish procedures for notifying Congress when programs deviated from pre-established cost, performance, and schedule baselines. It should be noted that some in the Department considered such requirements unduly cumbersome.

In 1987, the Packard Commission specifically highlighted the defense enterprise program concept and the concept of milestone authorizations as needed reforms in the acquisition process.

The Department has implemented a restructuring of the acquisition organizations of the Services that has followed the outlines of the Packard Commission and has paralleled the recommendations contained in the defense enterprise program. However, the Department of Defense has done nothing to implement either defense enterprise programs or the milestone authorization process. Notwithstanding the promise in the defense management review to make greater use of these authorities, neither of the Department's last two budget requests sought defense enterprise program status or milestone authorizations for any program. The Department has informed the committee that there are no plans to implement or utilize these provisions to enhance the management process in the Department.

Last year, the Department requested additional authority to waive laws and regulations relating to acquisition policy in order to test the use of standard commercial practices as part of a pilot program. Congress enacted appropriate authority for the establishment of a Major Defense Acquisition Pilot Program, providing procedures for waiver of applicable laws and regulations for up to six major programs. Despite the Department's strong plea for such legislation last year, the Department did not request that a single program be tested under the pilot program concept in fiscal year 1992. It would appear from these events that the Department is unwilling to spend the time and effort necessary to use these important tools for reform.

The committee continues to believe that the defense enterprise program concept, milestone authorization process, and the pilot program authority have substantial merit, and is prepared to provide the necessary support if the Department undertakes the administrative action essential to making these programs work.

Congress initially placed five programs under milestone authorizations. The Department's implementation of milestone authorizations provided no benefits, but imposed additional reporting and management requirements on program managers. For that reason, the Congress repealed those authorizations (sec. 109 of Public Law 101-510). Program managers for those programs need no longer submit reports pursuant to title 10, U.S.C. 2437. That repeal does not reflect a lack of support of the concept, but does reflect a desire not to burden program managers when the acquisition leadership in the Department will not implement a needed reform.

TITLE IX—DEPARTMENT OF DEFENSE ORGANIZATION AND MANAGEMENT

MEMBERSHIP OF THE VICE CHAIRMAN ON THE JOINT CHIEFS OF STAFF

Chapter 5 of title 10, United States Code, as amended by section 201 of the Goldwater-Nichols Department of Defense Reorganization Act of 1986, established the position of the Vice Chairman of the Joint Chiefs of Staff (JCS); provided that the Vice Chairman outranks all other members of the armed forces except the Chairman; and made the Vice Chairman the acting Chairman of the JCS in the event of the absence or disability of the Chairman. The legislation did not, however, make the Vice Chairman a member of the JCS. This produced an anomaly in that the Vice Chairman is not a member of the body which he from time to time chairs. Accordingly, the committee recommends that the Vice Chairman be designated a member of the JCS.

DEPUTY UNDER SECRETARY OF DEFENSE FOR POLICY

The committee has been pleased with the greater involvement of the Under Secretary of Defense for Policy in the formulation of strategy and contingency planning, and in the better linkage between strategy and resources. Much of this effort has resulted from the creation of the office of the Principal Deputy Under Secretary (Strategy and Resources) pursuant to the July 1989 Defense Management Report. The committee recognizes that this important effort will be facilitated by increasing the stature and prestige of that position. Moreover, it is desirable to establish a Deputy Under Secretary of Defense for Policy, who will assist the Under Secretary in the performance of his numerous other duties and act for him when he is absent. Accordingly, the committee recommends the establishment of the Deputy Under Secretary of Defense for Policy.

JOINT DUTY ASSIGNMENTS

One of the primary purposes of the Goldwater-Nichols Department of Defense Reorganization Act of 1986 was the improvement of joint officer management policies to help ensure that future combat operations would be planned and conducted through the efficient integration of land, sea, and air forces. The Congress concluded that the greater exposure of officers to joint matters through joint duty assignments would encourage the joint perspective necessary to achieve this goal. Operation Desert Shield/Desert Storm demonstrated the effectiveness of our armed forces when the efforts of the various Service commands and units are truly integrated.

The Goldwater-Nichols Act established certain standards and criteria for a "joint tour" of duty. These standards are essential to ensure that individual officers receive the peacetime exposure to joint matters that is necessary to function effectively during wartime. In Operation Desert Shield/Desert Storm, however, many officers served in positions that involved significant experience and intensity in joint matters during the preparation for and conduct of actual hostilities. The committee believes that they should be given credit for a joint tour, although they may not meet the technical requirements of the peacetime criteria. The committee envisions that this provision would apply to a substantial number of officers who participated in those operations, including those officers at the unit level whose activities involved frequent interaction with units and individuals of the other Services or of the forces of allied nations.

Section 903 would require the Secretary of Defense to grant credit for a full tour of duty in a joint duty assignment in the case of officers who have served in positions involving significant experience in joint matters or frequent professional interaction with units and members of another Service or an allied armed force during Operation Desert Shield/Desert Storm and follow-on activities in the Persian Gulf. In making this decision, the Secretary of Defense would be acting on the recommendations of the Service Chiefs as concurred in by the Chairman of the Joint Chiefs of Staff.

The committee realizes that a considerable degree of discretion will be required in the administration of this process. The committee believes that the participation of officers at the planning, command, and operational levels in integrated efforts such as Operation Desert Shield/Desert Storm is the very essence of joint duty.

CINC INITIATIVE FUND

Section 904 would authorize $25.0 million for use by the Chairman of the Joint Chiefs of Staff to fund requests of the combatant commanders for certain enumerated activities in each of the next two years. This is the third year for this fund and the first year that it has been included in the Department's budget request. The committee has made a few changes to the enumerated activities, including covering foreign country participation in joint (combined) exercises and authorizing additional support for counter-drug activities, pursuant to section 905 of this bill.

DRUG INTERDICTION AND COUNTER-DRUG ACTIVITIES

Since the enactment of the National Defense Authorization Act for Fiscal Year 1989, the Department of Defense has consistently increased its participation in the national counter-drug effort and has made major improvements in its assistance to law enforcement agencies involved in that effort.

The *Report of the Department of Defense on Drug Interdiction and Counter-Drug Activities for Fiscal Year 1990* is a comprehensive "report card" on the Department's efforts during fiscal year 1990 and has been of great assistance to the committee in assessing funding and policy requirements for the future. It is clear that, although some problems remain in connection with the Department's support to law enforcement agencies, notable progress has been made in this area.

The issuance of the first *Inter-Agency Assessment of Cocaine Movement* is a major step forward in the national counter-drug effort. The committee is firmly convinced that efforts to arrive at a government-wide agreement on the nature of the threat and the opponents' mode of operation will obviously lead to closer coordination and cooperation between the Department and the numerous other agencies involved in this effort. The committee believes that a similar assessment of heroin movement should be made as soon as possible.

Based upon these encouraging developments, the committee has sought to preserve those authorities, policies, and programs that have been successful, and to make adjustments that may lead to even better results in the future.

The committee has been impressed with the law enforcement agencies' positive assessment of the Department's support. The committee is generally pleased with the Department's budget submission and justification documents for fiscal years 1992 and 1993. The only major disappointment is the failure to seek extension of the authorities concerning additional support to and funding for support to law enforcement agencies. The committee believes that it is essential to extend the provisions of section 1004 of the National Defense Authorization Act for Fiscal Year 1991 for the next two fiscal years, and to provide $40.0 million for that support. The committee remains convinced that, although relatively small in amount, such assistance fills a gap in the overall national counter-drug effort.

The committee emphasizes that, with the sole exception of the Services' internal prevention, education, treatment and rehabilitation programs, the Department's counter-drug efforts are all in support of federal, local, and foreign law enforcement agencies. Accordingly, the committee recommends that the Department's lead role in the detection and monitoring of aerial and maritime transit of illegal drugs into the United States be characterized as in support of law enforcement agencies.

Additionally, the committee believes that the Department can make major contributions in two separate areas: the enhancement of efforts to facilitate the coordination and dissemination of drug-related intelligence among military and law enforcement personnel and agencies, and the development of technology to detect drugs in containers. Finally, the committee is pleased that the Department has included funding for Civil Air Patrol (CAP) drug interdiction activities. This funding may be used for drug interdiction missions for federal, state, and local agencies, for travel and per diem expenses of CAP members, and for administrative expenses incurred in support of those missions, without reimbursement by those agencies.

The committee has made some changes in the Tactical Intelligence and Related Activities (TIARA) account, but there is no net reduction in that account. Details of these actions may be found in the classified annex.

The committee has made a number of non-prejudicial program increases, reductions, and eliminations, as reflected in the attached table. The committee believes that project 4411 can be accomplished more properly under the authorities contained in section

1004 of the National Defense Authorization Act for Fiscal Year 1991, as extended by the committee's proposal.

Drug Interdiction and Counter Drug Activities,
Operation and Maintenance
(In thousands of dollars)

FY 1992 Drug Interdiction and Counter Drug Activities O&M Request	1,158,600
Reductions	
Project 4411 Military Working Dogs	(800)
Project 4420 AFOSI Drug Enforcement	(1,940)
(Procurement)	(350)
Demand reduction	(10,000)
OPTEMPO	(40,000)
Total reductions	(53,090)
Increases	
Project 9490 Contraband Detection/ Cargo Container Inspection Technology (RDT&E)	2,590
Project 5201/5202 Drug Enforcement Telecommunications Support (C3I Network)	10,000
Project 4499 Civil Air Patrol	500
Additional support to law enforcement	40,000
Total increases	53,090
Recommendation	1,158,600

FY 1993 Drug Interdiction and Counter Drug Activities O&M Request	1,249,400
Reductions	
Project 4411 Military Working Dogs	(828)
Project 4420 AFOSI Drug Enforcement	(2,746)
(Procurement)	(170)
Demand Reduction	10,000
OPTEMPO	50,000
Total Reductions	53,744
Increases	
Project 9490 Contraband Detection/ Cargo Container Inspection Technology (RDT&E)	13,244
Project 5201/5202 Drug Enforcement Telecommunications Support (C3I Network)	10,000
Project 4499 Civil Air Patrol	500
Additional support to law enforcement	40,000
Total increases	63,744
Recommendation	1,249,400

OVERSIGHT AND MANAGEMENT OF SPECIAL ACCESS PROGRAMS

Special access programs were originally intended for application to a limited number of military programs. Over time, the vast expansion in the number of special access programs, and the inclusion of major programs in the special access category, have led to serious negative consequences. These have included: failures of internal management (e.g., the A-12 aircraft program); shielding programs from congressional oversight (e.g., through the use of "umbrella" programs to mask the true number of programs and program details); and refusal to provide access necessary for proper oversight.

Congressional oversight has been stymied by delaying responses to requests by Members for information, and by denying staff access. DOD oversight is hampered by the absence of an organizational arrangement in which special access programs are properly coordinated.

The committee recommends a provision that would strengthen oversight by requiring high-level management attention within DOD to special access programs, and by specifying the types of information that must be provided to Congress before funds may be expended on special access programs. This provision would cover all three types of special access programs: acquisition, intelligence, and operational/support special access programs.

Under this provision, statutory responsibility for special access programs would be assigned to the Deputy Secretary of Defense. The Deputy Secretary could delegate this responsibility only to a flag or general officer in a grade not lower than lieutenant general or vice admiral. This officer—the Principal Assistant to the Deputy Secretary of Defense for Special Access Programs—would not count against either the grade limitations for such positions or the limitations applicable to the total number of flag and general officers. The Committee intends that the Principal Assistant will be provided with an appropriate staff, including the staff currently assigned to the special access function in the Office of the Under Secretary of Defense for Acquisition.

The Deputy Secretary, acting through the Principal Assistant, would be responsible for: (1) supervising the coordination and management of special access programs; (2) establishing policies for all special access programs for all elements of the Department of Defense; and (3) approving the establishment or any significant change in the conduct or mission of a special access program.

Not later than January 15, 1992, the Deputy Secretary of Defense would be required to issue new policies, including: (1) standards and procedures for designation of programs as special access acquisition programs; (2) a requirement for each special access program manager to submit to the Secretary of Defense a reclassification schedule when total program cost is expected to exceed $50.0 million; (3) an annual review by the Deputy Secretary of Defense of the classification status of each special access program; (4) procedures for appropriate exchange of information among technologically-related programs; and (5) procedures to ensure timely oversight by officials with expertise in cost, schedule, and performance reviews, and applicable intelligence or operational matters.

The legislation would strengthen congressional oversight through the following requirements: (1) when a special access program is initiated after the annual statutory special access report is submitted to Congress, the report to Congress on the initiation of the new program must include the same type of descriptive and budgetary information that is contained in the annual report; (2) submission of the required report to Congress would be a precondition to expenditure of funds; (3) access to information must be provided to a person in the legislative branch of government designated by the

Chairman or ranking member of the congressional defense committees within 10 days of a request unless the President submits a detailed explanation as to why providing the information to the particular employee would adversely affect the national security.

In order to ensure timely consideration of Departmental requests with respect to special access programs and to ensure proper oversight, the committee directs the Department to ensure that the Principal Assistant for Special Access Programs, on a continuing basis, provides the congressional defense committees with a current and complete list of special access programs, along with a complete list of all legislative branch employees who have access to each program.

The committee believes that these modest steps are essential to establishing the proper elements of management and oversight for special access programs. The committee notes that if the Department fails to restore confidence in the management of special access programs through proper implementation of these provisions, consideration will be given to terminating the funding of special access programs.

REVISION IN MEMBERSHIP OF THE STRATEGIC ENVIRONMENTAL RESEARCH AND DEVELOPMENT PROGRAM COUNCIL

Section 907 would increase the number of members on the Strategic Environmental Research and Development Program Council by adding one member from each of the military Services and the Coast Guard.

DEFENSE INTELLIGENCE REORGANIZATION

At the initiative of this committee, the National Defense Authorization Act for Fiscal Year 1991 directed the Secretary of Defense, together with the Director of Central Intelligence (DCI), to conduct a joint review of intelligence and intelligence-related activities to: eliminate redundancy; strengthen joint intelligence support to the combatant commands; improve threat assessments for acquisition programs; ensure that intelligence priorities reflect the changed security environment; and improve the responsiveness and utility of national intelligence systems and organizations to the needs of the combatant commanders. The Act also mandated an overall unallocated 25 percent manpower reduction in the National Foreign Intelligence Program (NFIP) and the Tactical Intelligence and Related Activities (TIARA) programs from 1992 through 1996.

In response to this legislation, the Department of Defense, with the participation of the DCI, conducted a review of defense intelligence programs. As a result of this review, the Deputy Secretary of Defense signed, on March 15, 1991, a *Plan for the Implementation of Defense Intelligence Restructuring*. The study made the following recommendations:

(1) Ensure the quality, relevance, and timeliness of defense intelligence support to national and international security policies, plans, and programs by establishing a Defense Intelligence Policy Council to assist the Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD(C3I)) and the intelligence community;

(2) Strengthen intelligence support to the combatant commanders and enhance "jointness" by consolidating existing unified and specified combatant command and component intelligence processing, analysis, and production activities into regional Joint Intelligence Centers; reshape the combatant command and Service component staffs into small, high quality groups that can provide focused intelligence evaluations to the combatant commander; establish dedicated elements within the Defense Intelligence Agency (DIA) to serve as a focal point for all intelligence activities supporting the Office of the Secretary of Defense (OSD) and the Chairman of the Joint Chiefs of Staff.

(3) Increase efficiency in defense intelligence by consolidating, streamlining, and reducing management overhead; reducing overseas operating locations; consolidating various intelligence commands, agencies, and elements into a single intelligence command or agency within each Service; reducing subordinate Service and Agency intelligence headquarters while maintaining scientific and technical intelligence production centers of excellence; strengthening management of all defense intelligence production to eliminate overlap and unnecessary duplication; establishing single joint commands at signals intelligence field stations; conducting a zero-based review and reordering of defense intelligence requirements to reflect a worldwide, rather than a Soviet/Warsaw Pact, focus; and centralizing order-of-battle production and common intelligence support functions.

(4) Strengthen the role and performance of the Defense Intelligence Agency as a combat support agency and improve the quality of the defense intelligence product by streamlining and reconfiguring DIA and emphasizing quality analysis and reporting of strategically important intelligence; strengthening the DIA management of intelligence production and analysis; taking appropriate manpower management steps to ensure a strong military focus within DIA; and assigning DIA the responsibility to perform and oversee basic encyclopedic data base production.

(5) Ensure an independent intelligence input into the acquisition process by establishing within DIA a capability to validate threat information and the procedures the Service component intelligence commands or agencies will use in preparing system threat reports for acquisition programs.

(6) Strengthen the counterintelligence functions of the Department of Defense by consolidating counterintelligence and security activities with existing ASD(C3I) intelligence, security countermeasures, and telecommunications and information system security activities.

(7) Improve support to OSD by establishing within DIA a Policy Issues Office, capable of obtaining tailored information and support across the intelligence community, with primary responsibility for focused responses to OSD-generated intelligence questions and issues.

(8) Improve the Department's ability to manage resources centrally and improve the integration of national and tactical intelligence by focusing ASD(C3I) staff responsibility for planning, policy development, congressional relations, functional management, and budgeting; centralizing defense-wide intelligence policy and re-

source management; establishing an Intelligence Program Support Group to consolidate the review of national and tactical programs, develop a DOD-wide architecture, and assess customer satisfaction; and transferring responsibility for General Defense Intelligence Program (GDIP) management to the ASD(C3I).

The committee has carefully reviewed the DOD plan, met with senior Defense Department officials, and interviewed former defense intelligence officials. As a result of its review, the committee finds that it is in substantial agreement with most of the plan, and congratulates DOD for its responsiveness to the committee's direction. There is, however, one area in which the committee strongly disagrees, and this concerns the role of the Defense Intelligence Agency as a defense agency and as a member of the National Foreign Intelligence Program.

The intelligence management structure articulated in the current DOD plan appears to make DIA essentially a staff element of ASD C3I. The basis for this approach is that it will be more difficult for the various DOD intelligence entities to resist the direction of ASD(C3I) than that of the Director of DIA. In the committee's view, this approach, in the long-run, seems unwise, running the risk of harming defense intelligence and, indeed, national intelligence for the following reasons:

(1) It runs the risk of politicizing DIA intelligence support by placing politically appointed officials in direct charge. This runs counter to the practice of affording the greatest practical amount of independence to intelligence analysis;

(2) It runs the risk of poor management of DIA when the appointed official has little expertise in intelligence;

(3) It places an official who is not part of the NFIP in charge of an agency that, in many areas, comes under the authority of the Director of Central Intelligence;

(4) It does nothing to solve DIA's real problem—a lack of authority to manage defense intelligence—which the committee stressed in the fiscal year 1991 defense authorization act;

(5) It places an OSD official in a position of line management, rather than oversight and policy formulation, over a large and complex agency with a variety of missions, including operational missions, in support of combatant commanders; and

(6) It would be inconsistent with the Goldwater-Nichols Defense Reorganization Act, which exempted DIA and the National Security Agency (NSA) from the normal oversight process for Defense Agencies in view of the unique and bifurcated chain of command of those agencies.

Along with these problems, the committee notes that the attractiveness of subordinating DIA directly to the ASD(C3I) is superficial, since his powers and authorities to manage the GDIP are hardly greater than those of the DIA Director.

An alternative approach, which DOD accepted in principle when DIA was created, is for a strong defense intelligence agency, staffed and managed by career intelligence professionals, to provide a joint, all-source analytical focus, provide analyses of common concern, and manage DOD-wide intelligence programs. This approach was never fully implemented, however, because of the compromises to DIA authorities that were made when it was first created.

The committee believes that the Department of Defense is best served by giving DIA the authority necessary to manage certain aspects of defense intelligence. Intelligence must be managed by intelligence professionals, who have day-to-day working knowledge of the very real problems facing defense intelligence, and the expertise to solve them. The committee, therefore, recommends a provision (sec. 911) that would enhance the authority of the Director of DIA to match his responsibilities and to ensure effective intelligence support to senior DOD officials, the combatant commanders, and the Director of Central Intelligence. In making its recommendations, the committee has tried to strike a balance among the need for centralized management by career intelligence professionals and political appointees; the need for independent and joint, all-source analysis; and the need for intelligence to respond to a wide array of DOD civilian and military officials.

Section 911 would codify in law the individuals to whom the Director of DIA reports. It is intended to ensure that he has access and is responsible to the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and the DCI. In addition, the committee recognizes that, in certain areas, he must also report to and receive guidance from other Defense Department officials. The section would also specify explicitly that the Director of DIA shall manage the Defense Intelligence Agency, and that this agency shall produce general military, scientific, and technical intelligence, and perform other analysis, liaison, and intelligence missions assigned to it. The ASD(C3I) shall ensure that DOD regulations and directives conform to the provisions in this bill.

The committee recognizes that certain DOD-wide intelligence management functions properly reside at the level of the ASD(C3I). These primarily deal with acquisition of collection systems and OSD guidance, oversight, and policy for intelligence matters and cross-program intelligence issues. The committee endorses the creation of an Intelligence Program Support Group to provide expertise in these areas, and directs DIA to ensure that this group is fully supported.

Nevertheless, the committee wishes to emphasize that the Director of DIA should report directly to the most senior officials within the defense and intelligence establishments. The committee does not wish to see day-to-day management authority stripped from the Director of DIA. Therefore, with the exception of the Intelligence Program Support Group, the ASD(C3I) shall oversee DIA operations, but shall not have direction, control, and authority.

Section 911 would transfer back to the Director of DIA the management of the General Defense Intelligence Program for the same reasons articulated above. Management of certain defense intelligence functions, particularly those in the national foreign intelligence arena, is best assumed by career defense intelligence officials as part of a strong, viable Defense Agency. In addition, since the GDIP is part of the NFIP, the committee believes that it should be managed by an NFIP principal, such as the DIA Director.

While the DIA Director has, until recently, managed development of the GDIP budget, his authority has never extended beyond recommending a budget to the DCI. In particular, the committee notes that the Director of DIA and his staff have been denied knowledge and oversight of activities of GDIP elements when these elements supported their parent Services. This has happened because the Director has had no program execution authority over the GDIP. Section 911 is intended to reassert the Director's budget development authority and to extend his authority to monitor *all aspects* of its execution, including support of the Military Departments, and to disapprove of major execution decisions which are inconsistent with DOD-wide intelligence objectives. The committee does not intend that DIA inhibit the day-to-day responsiveness of any of the GDIP component elements through the grant of these authorities.

Section 911 would also grant to the DIA Director the authority to recommend reprogrammings to the Secretary of Defense and the DCI. The committee believes that as the program manager for the GDIP, the Director of DIA is in the best position to determine the GDIP requirements for reprogrammings and the sources of GDIP funds for GDIP and non-GDIP reprogrammings.

Section 911 would strengthen the role of all of the DIA functional managers in providing management assistance to the Director of DIA. The functional managers are substantive experts positioned within DIA to manage GDIP-wide and defense-wide programs in specific areas. These individuals have experienced the same roadblocks to exercising their responsibilities as the Director. The committee believes that these individuals should participate in developing and approving budgets in their respective functional areas; should monitor all aspects of program execution, regardless of the nature of the activity or compartmentation; and should provide direction and tasking. Finally, the functional managers for intelligence production shall review any scheduled production or production series, regardless of compartmentation, requested by a Military Department to determine who, beyond that Service, would benefit from further dissemination of the product.

Finally, the committee wishes to clarify the proper relationship between ASD(C3I) and the Director of DIA. The committee intends that ASD(C3I) shall not exercise day-to-day operational authority, and shall have no role in analysis, dissemination of analyses, and civilian and military personnel actions of DIA. He shall, with the concurrence of the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and the Director of Central Intelligence, as appropriate, and consistent with this guidance, issue policy guidelines. He shall also audit the DIA and the GDIP for problems, propose solutions, and review and adjust the proposed GDIP budget to insure its integration with TIARA.

IMPROVING NATIONAL INTELLIGENCE SUPPORT TO MILITARY COMMANDERS

As part of its tactical intelligence initiative, the committee recommends several measures to improve the ability of national intelligence systems to support the combatant commands in wartime. The measures described in this section relate to exercises and training, tasking of national systems, assessing the wartime readiness of national programs, and retaining the Washington-based

Joint Intelligence Center created during Operation Desert Shield/Desert Storm.

The Defense Support Program Office (DSPO) and the national intelligence program manage a well-conceived program for training personnel in the Services and the unified and specified commands and for supporting the warfighting commands in exercises involving national assets. The program is beginning to focus on two-way communications—not only informing theater commanders about national capabilities but also familiarizing the national community with military operations and requirements.

The problem is that the scale and realism of this program is not nearly adequate enough, particularly for those commands most likely to be involved in contingency operations. Therefore, the committee recommends, as a first step, a doubling of the requested amount for training and exercise support from $15.0 million to $30.0 million.

The committee also recommends a provision (sec. 913) that would mandate that the Secretary of Defense, through the Chairman of the Joint Chiefs and the combatant commanders, regularly exercise use of national intelligence assets for the purpose of preparing for wartime responsibilities.

Another recommendation, described in the classified annex to this report, addresses the authority of the Chairman of the Joint Chiefs of Staff to assess the responsiveness and readiness of elements of the national foreign intelligence program to support operating forces in the event of a war or threat to national security.

The committee furthermore directs the national foreign intelligence program to establish expert representation at the J-2 intelligence offices of the combatant commands, subject to the approval and authority of the combatant commanders. These representatives should be tasked to support the unified commanders and the national intelligence program by providing technical expertise, coordinating exercise and training activities, and helping to ensure that the national program is prepared to respond to the unified commanders' wartime requirements. In this regard, the committee also requests that the CIA establish a Directorate of Intelligence and Directorate of Operations liaison at each of the Joint Intelligence Centers, reporting to the J-2s and maintaining direct communications to CIA.

The committee also recommends a provision (sec. 912) that would direct the Secretary of Defense to retain the Joint Intelligence Center (JIC) that was created in Washington to support Operational Desert Shield/Desert Storm. This JIC should serve as the only intelligence center for current intelligence, indications and warning, and, consistent with its wartime responsibilities, collection tasking and management in support of military operations. The JIC should be managed by DIA in its capacity as the intelligence arm (J-2) of the Chairman of the Joint Chiefs of Staff. The JIC should fully respond to the Secretary of Defense and the Chairman of the Joint Chiefs of Staff.

IMAGERY MANAGEMENT IN DOD

The Persian Gulf war demonstrated that modern military forces require an enormous volume of quality and timely imagery products, derived from a variety of electro-optical and radar sensors, for effective battle planning, execution, and damage assessment. Overall, the imagery tasking, exploitation, and dissemination process, however, proved unequal to the task. The committee believes that management deficiencies are largely to blame.

The Services, left to their own in designing and procuring imagery systems, are equipped with a multitude of secondary dissemination systems that are not interoperable, that operate very slowly, and that produce inadequate quality for many applications.

Highly capable, imagery receive locations have proliferated throughout DOD, and each one is backed up by significant numbers of skilled imagery analysts. The committee questions whether this collection of receive locations and exploitation centers reflect a rational division of labor or are well matched to the needs of the combatant commands. In Operation Desert Shield/Desert Storm, multiple organizations reportedly flooded the theater with imagery products, creating confusion and duplication and consuming scarce lift capacity, until the Defense Intelligence Agency intervened.

Exploitation centers with the mission of providing target materials for tactical forces were ill-prepared to provide the kind of flexible and responsive support required in the air campaign. These centers, rather, were accustomed to producing target materials on a years-long "scheduled" basis.

The unified commander's staff and component commanders were unaware of the progress of their requests for support in the national tasking process, which resulted in duplicative tasking of tactical systems. Lack of familiarity with national capabilities caused many unproductive collection requests.

Based largely on imagery, bomb damage assessments clearly were deficient. These assessments reportedly were derived from rigidly applied target damage methodologies that bore little or no relation to combat objectives or residual enemy capabilities. By some accounts, pilots had difficulty obtaining current imagery necessary to plan their missions. For target re-strikes, planners had difficulty receiving updated target aimpoints based on good damage assessments.

These problems occurred even though only a relatively small fraction of total U.S. conventional power was engaged. It is therefore difficult to imagine how the entire intelligence community could have supported a larger conflict.

The problems associated with imagery, exploitation, and dissemination demand strong management attention. The committee believes that a single manager for the imagery discipline is the most promising method of achieving that focus.

The committee recommends a provision (sec. 914) that would direct the Secretary of Defense to assign to the Director of the Defense Intelligence Agency (DIA) responsibility to manage imagery processing, exploitation, and dissemination within DOD. The single manager shall be responsible for budgets, approving programs, personnel policies, organizational matters, standards and formats, and assigning responsibilities. The Director of DIA currently has this imagery management responsibility, but his authority to carry out that responsibility is seriously deficient.

The committee also recommends that each of the Services establish imagery personnel management programs that provide a career path spanning tactical and national-level assignments. Imagery personnel practices will become more important as electro-optical, moving target indicator radar, and synthetic aperture radar imaging systems are widely deployed in the tactical forces.

TITLE X—SUPPLEMENTAL AUTHORIZATION OF APPROPRIATIONS FOR OPERATION DESERT STORM

AUTHORIZATION OF DEFENSE COOPERATION ACCOUNT FOR FISCAL YEAR 1992

Title I of the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 authorized the use of foreign contributions in the Defense Cooperation Account, as well as funds in the Persian Gulf Regional Defense Fund, to pay incremental costs of Operation Desert Shield and Operation Desert Storm. The provisions of that Act authorized the Secretary of Defense to transfer amounts from either account, subject to certain conditions, including notification to the congressional defense committees seven days prior to the transfer of any funds.

Section 1001 of the bill extends this existing transfer authority through fiscal year 1992 with respect to the funds appropriated in the Operation Desert Shield/Desert Storm Supplemental Appropriations Act, 1991.

Before making the transfers under section 1001, the Secretary of Defense must continue to comply with the conditions for such transfers applicable under current law, including prior notification to the committees.

The committee is concerned with the lack of information accompanying the request for $291 million for prepositioning of equipment in the Persian Gulf region. The committee did not take any action on this matter, but deferred consideration without prejudice, pending receipt of detailed explanatory information from the Department of Defense. The committee directs the Department to provide such information to the congressional defense committees in advance of submitting any proposed transfer notice under section 1001.

Section 1002 of the bill provides new authority to transfer $4.4 billion from the Defense Cooperation Account or the Persian Gulf Regional Defense Fund to specific programs during fiscal years 1991 and 1992. The programs for which transfers are authorized are identified in the table below. These transfers are explicitly authorized and are not subject to the notification provisions of Section 1001.

The table of programs authorized in section 1002 include changes made by the committee to the administration's request. The committee includes in this supplemental authorization $238 million in Desert Storm requirements included as part of the omnibus reprogramming request. The committee does not approve the requested increase for OH-58 helicopters, which is a program terminated by Secretary Cheney. The increases for JSTARS aircraft, Patriot missiles, Heavy Equipment Transporters, and F-15E aircraft are discussed elsewhere in this report.

Section 1003 of the bill includes Operation Provide Comfort, the Kurdish humanitarian assistance effort, in the definition of "Operation Desert Shield" for purposes of this supplemental.

FISCAL YEAR 1991 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

	Supplemental Request		-----Senate------ Change to Request		--- Senate FY1991--- Authorization	
ITEM	Quantity	Amount	Quantity	Amount	Quantity	Amount
AIRCRAFT PROCUREMENT ARMY						
CH-47D MODIFICATIONS	2	27,000			2	27,000
OH-58D MODIFICATIONS	12	90,200	-12	-90,200	0	0
UH-60 HELICOPTER	6	38,400			6	38,400
UH-60 HELICOPTER (REPLACES UH-1)	7	45,000			7	45,000
TOTAL		200,600		-90,200		110,400
MISSILE PROCUREMENT ARMY						
TOW/STINGER RESTOCKAGE	-	21,800				21,800
TOTAL		21,800		0		21,800
OTHER PROCUREMENT ARMY						
HMMWV	155	4,800			155	4,800
HEMMT M977	42	6,600			42	6,600
HEMTT M978	161	27,300			161	27,300
5 TON TRUCK M939	436	41,800			436	41,800
TOTAL		80,500		0		80,500

FISCAL YEAR 1991 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

ITEM	Supplemental Request		-----Senate------ Change to Request		--- Senate FY1991--- Authorization	
	Quantity	Amount	Quantity	Amount	Quantity	Amount
AIRCRAFT PROCUREMENT NAVY						
SH-60B HELICOPTER	1	17,000			1	17,000
F-18 AIRCRAFT	5	135,000			5	135,000
F-18 AIRCRAFT (REPLACES A-6)	4	108,000			4	108,000
AV-8B AIRCRAFT	6	230,000			6	230,000
AH-1W HELO (REPLACES AH-1J)	2	18,000			2	18,000
TOTAL		508,000		0		508,000
WEAPONS PROCUREMENT NAVY						
5" 54 GUN MOUNT	1	8,100			1	8,100
OTHER PROCUREMENT NAVY						
CIVIL ENGINEERING EQUIPMENT		97,700				97,700
MK-1103 MINE CLEARING SLEDS		2,100				2,100
TRUCKS		300				300
MEDICAL SUPPORT EQUIPMENT		12,600				12,600
TOTAL		112,700		0		112,700
PROCUREMENT MARINE CORPS						
LIGHT ARMORED VEHICLE	4	4,300			4	4,300
AIRCRAFT PROCUREMENT AIR FORCE						
AC-130 AIRCRAFT (SOCOM)	1	71,400			1	71,400
UH-60L HELICOPTER (SOCOM)	1	5,500			1	5,500
TOTAL		76,900		0		76,900
OTHER PROCUREMENT AIR FORCE						
LASER BOMB GUIDANCE KITS		460,000				460,000
TOTAL		460,000		0		460,000
TOTAL PROCUREMENT		1,472,900		-90,200		1,382,700

FISCAL YEAR 1991 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

ITEM	Supplemental Request Quantity	Supplemental Request Amount	------Senate------ Change to Request Quantity	------Senate------ Change to Request Amount	--- Senate FY1991--- Authorization Quantity	--- Senate FY1991--- Authorization Amount
RDT&E ARMY						
CHEM-BIO DEFENSE EQUIPMENT ADV DEV		6,600				6,600
NIGHT VISION SYS ENG DEV		6,100				6,100
CHEM/SMOKE EQUIPMENT DEF TECH		3,700				3,700
MISSILE/AIR, DEF PIP (23801A)		100				100
SPECIAL ARMY PROGRAM (39000A)		1,000				1,000
DEFENSE RSCH. SCIENCES (61102A)		500				500
MATERIALS TECHNOLOGY (62105A)		200				200
ELEC. SURV AND FUZING TECH. (62120A)		200				200
TRACTOR HIP (62122A)		300				300
EW TECHNOLOGY (62270A)		100				100
CMBT. VEH. & AUTO TECH. (62601A)		1,100				1,100
BALLISTICS TECHNOLOGY (62618A)		100				100
HUMAN FACT. ENGR. TECH. (62716A)		100				100
C3 TECHNOLOGY (62782A)		600				600
MIL ENGINEERING TECH. (62784A)		2,000				2,000
LO[illegible]CS TECHNOLOGY (62786A)		500				500
ME[illegible]. TECHNOLOGY (62787A)		800				800
MET[illegible]L ADV. TECH. (63002A)		300				300
TRACTOR HOLE (63012A)		2,100				2,100
MATL AND STRUC ADV TECH (63102A)		200				200
LANDMINE WAR/BAR ADV TECH (63606A)		2,000				2,000
SOLDIER SPT & SURV. (63747A)		200				200
LOG & ENGR EQUIP ADV DEV (63804A)		100				100
MEDICAL SYSTEMS-AD (63807A)		400				400
EW DEVELOPMENT (64270A)		100				100
CBT FEEDING CLO EQUIP (64713A)		700				700
TACTICAL SURV SYSTEM-ED (64740A)		200				200
TACTICAL ELEC SURV SYS-ED (64766A)		700				700
JT SURV TGT AT RDR SYS (64770A)		4,700				4,700
LOG & ENG EQUIP-ED (64804A)		1,400				1,400
MED MAT/MED BIO DEF EQUIP (64807A)		300				300
ARMY TEST RANGES/FAC (65601A)		1,400				1,400
TECH/VULN ASSESSMENT (65604A)		300				300
MAT SYS ANALYSIS (65706A)		100				100
EXPLOITATION OF FOREIGN ITEMS (65709A)		4,000				4,000
PROGRAMWIDE ACTIVITIES (65801A)		900				900
TECH INFO ACTIVITIES (65803A)		100				100
REAL PROP MAINT ACTY (65894A)		100				100
BASE OPERATIONS-RDT&E (65894A)		1,000				1,000
MNGT. HQ (R&D) (65898A)		200				200
NIGHT VISION TECH.(62709A)		700				700
CMBT. VEH & AUTO ADV. TECH (63005A)		800				800
CHEM/BIO DEF EQUIP ED (64806A)		200				200
MIL ENG ADV TECH (63734A)		600				600
TOTAL		47,800		0		47,800

FISCAL YEAR 1991 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

ITEM	Supplemental Request		Senate Change to Request		Senate FY1991 Authorization	
	Quantity	Amount	Quantity	Amount	Quantity	Amount
RDT&E NAVY						
TACTICAL COMMAND SYSTEM		1,300				1,300
MINE COUNTERMEASURES		2,200				2,200
LINK 11 IMPROVEMENT		900				900
THEATER MISSION PLANNING CTR.		400				400
EHF SATCOM		700				700
TACTICAL INTELLIGENCE PROCESSOR		600				600
TOTAL		6,100		0		6,100
RDT&E AIR FORCE						
AWACS		7,300				7,300
CONVENTIONAL MUNITIONS		400				400
CONVENTIONAL WPNS TECH		100				100
CREW SYS & PRES PROT TECH		900				900
AEROSPACE AVIONICS		400				400
C3I SUBSYSTEM INTEGRATION		300				300
ADVANCED COMPUTER TECHNOLOGY		500				500
C3 ADVANCED DEVELOPMENT		1,200				1,200
AEROSPACE FLIGHT DYNAMICS		300				300
F-15 SQUADRONS		700				700
EW DEVELOPMENT		1,800				1,800
NAVSTAR GPS		100				100
JOINT SURVEILLANCE SYS		3,300				3,300
CONSTANT SOURCE		3,800				3,800
ARMAMENT ORD DEV		1,700				1,700
SURFACE DEF SUPPRESSION		3,400				3,400
AEROMEDICAL SYS DEV		300				300
TOTAL		26,500		0		26,500

FISCAL YEAR 1991 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

ITEM	Supplemental Request		-----Senate------ Change to Request		--- Senate FY1991--- Authorization	
	Quantity	Amount	Quantity	Amount	Quantity	Amount
RDT&E DEFENSE AGENCIES						
FLYING CARPET		10,300				10,300
DART		5,600				5,600
TACNAT/FULCRUM (62702E)		3,300				3,300
LAST/ CERAMICS INSERTIONS (62702E)		1,000				1,000
IFF (62702E)		300				300
LAST/TACTICAL (63226E)		1,100				1,100
SPEC. WARFARE REMOTE IMAGE PERISCOPE		300				300
ADV. SAT. TECH (MACSAT) (63226E)		300				300
OSD		2,800				2,800
DCA		300				300
SOCOM		2,700				2,700
DSPO		100				100
TOTAL		28,100		0		28,100
TOTAL RESEARCH & DEVELOPMENT		108,500		0		108,500

FISCAL YEAR 1991 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

ITEM	Supplemental Request Quantity	Supplemental Request Amount	Senate Change to Request Quantity	Senate Change to Request Amount	Senate FY1991 Authorization Quantity	Senate FY1991 Authorization Amount
OPERATION & MAINTENANCE, DEFENSE AGENCIES						
SPECIAL OPERATIONS COMMAND		0		50,000		50,000
OPERATION & MAINTENANCE, ARMY RESERVE						
RESERVE OPERATIONS		0		23,200		23,200
OPERATION & MAINTENANCE, NAVY RESERVE						
AIRFRAME & ENGINE REWORK		0		28,300		28,300
OPERATION & MAINTENANCE, ARMY NATIONAL GUARD						
FUEL PRICE INCREASE		0		41,900		41,900
OPERATION & MAINTENANCE, AIR NATIONAL GUARD						
FUEL PRICE INCREASE		0		55,000		55,000
TOTAL OPERATION & MAINTENANCE		0		198,400		198,400

FISCAL YEAR 1991 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

ITEM	Supplemental Request		-----Senate------ Change to Request		--- Senate FY1991--- Authorization	
	Quantity	Amount	Quantity	Amount	Quantity	Amount
ARMY STOCK FUND						
DEPOT LEVEL REPARABLES FY1991		60,000				60,000
TOTAL		60,000		0		60,000
NAVY STOCK FUND						
DEPOT LEVEL REPARABLES FY1991		300,000				300,000
TOTAL		300,000		0		300,000
AIR FORCE STOCK FUND						
DEPOT LEVEL REPARABLES FY1991		60,000				60,000
TOTAL		60,000		0		60,000
TOTAL STOCK FUNDS		420,000		0		420,000
NATIONAL GUARD PERSONNEL ARMY						
GUARD PERSONNEL				40,196		40,196
TOTAL MILITARY PERSONNEL				40,196		40,196
TOTAL SUPPLEMENTAL AUTHORIZATIONS FOR FISCAL YEAR 1991		2,001,400		148,396		2,149,796

FISCAL YEAR 1992 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

ITEM	Supplemental Request Quantity	Supplemental Request Amount	Senate Change to Request Quantity	Senate Change to Request Amount	Senate FY1992 Authorization Quantity	Senate FY1992 Authorization Amount
MISSILE PROCUREMENT ARMY						
PATRIOT MISSILE		0	300	200,000	300	200,000
TOTAL		0		200,000		200,000
WEAPONS & TRACKED COMBAT VEHICLES						
PRODUCTION BASE SUPPORT		0		10,300		10,300
OTHER PROCUREMENT ARMY						
HEAVY EQUIPMENT TRANSPORTER		0		182,859		182,859
TACTICAL TRAILERS/DOLLY SET		0		25,000		25,000
TOTAL		0		207,859		207,859
AIRCRAFT PROCUREMENT AIR FORCE						
F-15E		0	3	125,000	3	125,000
E-8B JSTARS		0	2	652,600	2	652,600
TOTAL		0		777,600		777,600
OTHER PROCUREMENT AIR FORCE						
CBU-87 COMBINED EFFECTS MUNITION		0		100,000		100,000
TOTAL		0		100,000		100,000
TOTAL PROCUREMENT		0		1,295,759		1,295,759

FISCAL YEAR 1992 DESERT STORM SUPPLEMENTAL AUTHORIZATIONS (Sec. 1002)

	Supplemental Request		-----Senate------ Change to Request		--- Senate FY1992--- Authorization	
ITEM	Quantity	Amount	Quantity	Amount	Quantity	Amount
OPERATION & MAINTENANCE, ARMY						
TRANSPORTATION		227,300		0		227,300
TOTAL OPERATION & MAINTENANCE		227,300		0		227,300
ARMY STOCK FUND						
DEPOT LEVEL REPARABLES FY1992		350,000				350,000
TOTAL		350,000		0		350,000
NAVY STOCK FUND						
DEPOT LEVEL REPARABLES FY1992		150,000				150,000
TOTAL		150,000		0		150,000
AIR FORCE STOCK FUND						
DEPOT LEVEL REPARABLES FY1992		220,000				220,000
TOTAL		220,000		0		220,000
TOTAL STOCK FUNDS		720,000		0		720,000
TOTAL SUPPLEMENTAL AUTHORIZATIONS FOR FISCAL YEAR 1992		947,300		1,295,759		2,243,059
TOTAL FY1991/1992 NEW AUTHORIZATIONS, SECTION 1002		2,948,700		1,444,155		4,392,855

REPORT ON NATIONAL DEFENSE SPENDING

The use of foreign contributions to the Defense Cooperation Account to partially offset the costs of U.S. military participation in Operation Desert Shield/Desert Storm has created a unique situation in which at least three definitions of National Defense spending are possible.

First, total spending on programs contained in the National Defense function, regardless of the source of financing, represents a traditional definition. This could be termed a "gross" defense spending figure.

Second, defense spending that affects the federal budget deficit could be defined as total defense spending less the amount that was funded by foreign contributions. This represents the amount of defense spending that is funded by U.S. taxpayers.

Finally, defense spending subject to the discretionary spending caps for fiscal years 1991 through 1995 in the Budget Enforcement Act is defense spending excluding expenditures for Operation Desert Shield/Desert Storm or other emergencies designated in law, however financed.

The committee notes that to date the administration has not adopted a consistent approach that would make these distinctions clear. In the President's budget request, a "placeholder" for Operation Desert Shield/Desert Storm for fiscal year 1991 was placed in the Allowances function rather than in the National Defense function, yet spending in fiscal year 1990 of foreign contributions was included in the National Defense function.

The committee therefore directs the Secretary of Defense to report to the congressional defense committees, in conjunction with the budget requests for fiscal years 1993, 1994 and 1995, on the budget authority and outlays for each of these definitions of defense spending for the period covering fiscal years 1990 through 1995. Such reports should identify the functions in which the spending is included in the President's budget request as well as the budgetary treatment of the foreign contributions.

In addition, the report should subdivide spending under each of the definitions by appropriations subcommittee, and should identify the costs of Operation Desert Shield/Desert Storm (including Operation Provide Comfort) separately from expenditures from any other emergencies which may be designated in law.

TITLE XI—GENERAL PROVISIONS

TRANSFER AUTHORITY

Section 1101 would permit the transfer of an authorization for obligation for fiscal year 1992 or fiscal year 1993 to any other authorization made available in Division I of the bill. The Secretary of Defense could make such a transfer if he determines that it would be in the national interest. Section 1101 would provide the authority for reprogrammings involving the transfer of authorizations between the authorizations set out in the bill.

CHANGE IN DATE OF JOINT OUTLAY REPORT

The National Defense Authorization Act for Fiscal Years 1990 and 1991 required the Office of Management and Budget (OMB) and the Congressional Budget Office (CBO) to produce a joint report on outlays in the National Defense function. The intent of this report was to minimize the disruption to the defense budgeting process caused by relatively minor disagreements on spendout rates. The committee is pleased to note that the requirement to produce this joint report has had the intended effect.

When the original provision was enacted, the budget was submitted in early January. However, the President's budget is now submitted in early February. The administration's amended budget request proposed moving the deadline for this report from December 15, the date in current law, to the date on which the President's budget is submitted.

In light of this change in dates for submission of the President's budget, the committee agrees to approve the administration's request and recommends a provision (sec. 1102) that would change the date for submission of the report.

The committee notes that the intention of the original date was to ensure that agreement on outlay rates preceded the point at which OMB and CBO finalized the spendout rates that are used in the President's budget and in scorekeeping for purposes of the Congressional Budget Act and sequestration. Should this change in dates detract from this basic purpose of the provision, the committee will not hesitate to reinstate the original date.

REPORT ON OUTLAYS FROM MERGED ACCOUNTS

The National Defense Authorization Act for Fiscal Year 1991 substantially revised the procedures for closing appropriation accounts. As part of this revision, the Act required the Congressional Budget Office (CBO) to make annual reports on the effect on the deficit of the amendments made by those revisions.

The CBO has advised the committee that it does not have the information necessary to compile the report required by law. Therefore, the committee recommends a provision (sec. 1103) that would require the Office of Management and Budget to compile the report.

After several years, it will be impossible to differentiate between the deficit projected at that time and the deficit that might have been absent the changes made to the procedures for closing accounts. Therefore, section 1103 would require such reports only through fiscal year 1995.

AUTHORIZATION FOR TRANSFER OF OBSOLETE AIRCRAFT CARRIER U.S.S. ORISKANY

The International Information Friendship Foundation (IIFF), a Japanese non-profit organization, has requested the transfer of the decommissioned aircraft carrier U.S.S. *Oriskany* for the City of America project. This project, which is funded by many of Japan's largest corporations, envisions the creation of an American cultural, commercial, and educational center in Tokyo. The purpose of this project is to promote greater understanding of the United States in Japan. The centerpiece of the project is scheduled to be the *Oriskany,* which was decommissioned in 1976. The Navy is currently planning to scrap the *Oriskany* in October 1991. If transferred to the City of America project, the *Oriskany* will be converted into a cultural and commercial complex consisting of exhibits on American history, culture and trade.

The committee believes that this project has merit and therefore recommends a provision that would authorize the Secretary of the Navy to transfer the *Oriskany* to the IIFF, provided that the United States is paid an amount by the IIFF not less than the estimated scrap value of the vessel and that all restoration work on the *Oriskany* is performed in U.S. shipyards.

AUTHORIZATION FOR TRANSFER OF OBSOLETE RESEARCH VESSEL GYRE

The Navy supports a number of major institutes and universities by providing ships on which to conduct basic research activities. The research vessel GYRE, which the Navy has chartered to Texas A&M University for the past 18 years, is such a ship.

The Navy's Office of Naval Research has decided to retire the vessel at the end of fiscal year 1991. The committee understands that Texas A&M would very much like to continue operating the vessel. The committee further understands that this would involve a transfer of title to the ship. Thereafter, Texas A&M would continue to operate the research vessel GYRE, but at no cost to the federal government.

The committee recommends a provision that would authorize the Secretary of the Navy to transfer the ship to Texas A&M under such terms and conditions as he may specify.

MISSILE TECHNOLOGY CONTROLS

The committee has long been concerned with the accelerating process of proliferation in developing countries and the potential threat this poses to U.S. and allied interests and forces. It expressed this concern last year in section 1702 of the National Defense Authorization Act for Fiscal Year 1991, which amended the Export Administration Act of 1979 and the Arms Control and Disarmament Act of 1961 to strengthen controls on missile technology and require comprehensive reporting on missile proliferation.

Section 1704 of the National Defense Authorization Act for Fiscal Year 1991 required the President to provide comprehensive public reporting on the proliferation of long-range aircraft and missiles that could be used for the delivery of nuclear, biological, and chemical (NBC) weapons, and on the countries and companies contributing to proliferation. It provided ample waivers and exclusions to protect U.S. security interests, but provided that the President should make every effort to submit all of the information required by subsection (a) in unclassified form.

The first report pursuant to section 1704 was due on March 5, 1991 but has not yet been submitted. Further, it has become apparent that the process of proliferation is accelerating in several countries led by radical regimes, that a wide range of additional delivery systems and weapons are being developed or used to deliver weapons of mass destruction, and that other nations—like Iraq—have acquired substantially more advanced capabilities than had previously been estimated.

The committee regards this reporting requirement as an essential part of the effort to both halt the process of proliferation and to monitor the threat that it poses to the United States, its friends and allies, and world peace. It also regards the public exposure of those nations and companies that contribute to proliferation as one of the most successful single methods for halting the spread of weapons of mass destruction. It urges the President to take immediate action to fully comply with this reporting requirement, and to make every possible effort to provide a comprehensive report in unclassified form.

The committee is also aware that the present reporting requirement covers only a limited number of delivery systems, does not specifically address technologies associated with the manufacture of advanced weapons and warheads, and does not link reporting on delivery systems to developments in actual weapons of mass destruction. The committee, therefore, recommends a provision that would amend section 1704 to make it a comprehensive annual report on NBC proliferation.

MH-53 HELICOPTERS

In February 1991, the Navy submitted a plan for mine countermeasures forces which included a goal of 12 RH-53D helicopters in the Naval Reserve helicopter mine countermeasures squadrons. In considering the fiscal year 1991 budget, Congress added funds for 12 MH-53 helicopters to upgrade these Naval Reserve squadrons. The amended budget request for fiscal years 1992 and 1993 would deactivate these squadrons and rescind that appropriation, despite the fact that Congress directed the Department of Defense to emphasize greater use of the National Guard and Reserve components.

With the recent poor showing of our mine countermeasures forces in the Persian Gulf, it hardly seems that the country can afford to disband these Reserve mine helicopter squadrons and ignore needed improvements that these helicopters can bring to the Navy's mine countermeasures capability.

The committee recommends authorization of four more MH-53s to begin an expansion of the Reserve mine countermeasures force structure, either by expanding the unit equipment of existing squadrons or adding another squadron. The Department of the Navy should move expeditiously to award the contract for the MH-53 helicopters authorized and appropriated in fiscal year 1991. The committee also recommends a provision that would prevent disbanding the existing Reserve helicopter mine countermeasures squadrons.

NAVAL RESERVE STUDY

Last year, the committee urged the Navy to be more resourceful in evaluating better ways to use the Reserves in accomplishing its missions. One suggestion the Chief of Naval Operations (CNO) made to the committee during his confirmation hearing related to the concept of "nesting" ships. Since that time, the CNO has offered a specific proposal in the amended budget request for fiscal years 1992 and 1993, called the "Innovative Reserve Concept." This action moves a number of frigates into an "FFT" training category and other frigates into an inactive status. The ships in inactive status would be kept in a condition ready to go to sea within 180 days. A smaller number of the FFT ships would provide the training opportunities for multiple crews. This is an appropriate change in the status of these ships. In a war, they would have been used primarily for convoy defense. With increased warning times, the Navy can afford to move these ships into a lower availability category. The Navy is to be commended for taking these far-sighted steps.

The committee understands that the Navy is further studying the alignment of functions, missions, and forces between the active and Reserve components in a "Total Force Appraisal." On the basis of the Navy's actions with the frigates, the committee expects that this review will be both broad and thorough. For example, the committee encourages the Navy to include several matters in its review:

—"lessons learned" about structure and management of the Reserve component from reviewing the Reserve programs of the other uniformed Services.

—evaluating other functions or missions that may be shifted between the active and Reserve components.

The committee believes that the Navy should not approach this issue with any preconceived solution in mind. The committee recommends a provision that would preclude retiring the helicopter mine countermeasures squadrons because of specific concerns about mine warfare capability.

No one should infer from this action, however, that the committee is predisposed to denying any shift from the Reserve forces to the active components or to encouraging all shifts from the active forces to the Reserves. Such decisions must be based on the single measure that should prevail: What effect would any change have on overall combat effectiveness?

One situation has been brought to the committee's attention where a shift from the Reserves to the active forces may be appropriate. During Operation Desert Shield/Desert Storm, active units had to borrow combat search and rescue (SAR) helicopters from Reserve units. The committee understands that, for operational security reasons, among others, having to take unusual action to move Reserve units or borrow their equipment could cause decision makers to face a dilemma in a crisis. They could have the choice of deploying forces without needed capability or running the risk of giving advance warning of intended actions.

The committee also notes that a relative decline in the priority of antisubmarine warfare (ASW) would permit the Navy to structure the carrier air wing with a combined unit of some smaller number of ASW helicopters and a couple of the SAR helicopters. The Navy should consider the potential costs and benefits of such an alternative as a part of its study.

The committee also encourages the Navy to evaluate the structure of Reserve aircraft carrier air wings. As the number of air wings declines, the relative importance of the two Reserve wings increases. If the two wings will be counted upon to deploy on an active carrier in a crisis, the committee believes that they should be well trained and equipped, and be maintained in an appropriate state of readiness. It may well be that a Reserve air wing should be a "mirror image" of its active counterpart.

The committee understands that the "Total Force Appraisal" should be completed later this year, and the committee looks forward to receiving the results of this analysis.

REPEAL OF AIRCRAFT "ROBUSTING" REQUIREMENT

Last year Congress adopted a provision (sec. 1436) in the National Defense Authorization Act for Fiscal Year 1991 that requires the Air Force to ensure that active and reserve squadrons operate equivalent numbers of aircraft. The effect of the provision is to "robust" the squadrons in the reserve component.

Congress enacted this provision because it was convinced that a greater portion of the flying burden could be shifted to reserve forces. The Air Force's current force structure plans show a significant shift in relative terms to place greater emphasis on reserve forces. For example, while 11 tactical fighter wings will be deactivated over the next five years, 10 of those wings will come from active forces and one will come from reserve forces.

The committee congratulates the Air Force for embracing the policy direction contained in section 1436. The committee no longer believes section 1436 is needed, and it unnecessarily complicates lower level force structure planning. Consequently, the committee recommends a provision that would repeal section 1436.

REPLACEMENT OF OV-1 AND OV-10 AIRCRAFT WITH A-10 AIRCRAFT

Last year Congress directed the Army to retire OV-1 observation aircraft, the Marine Corps to retire OV-10 aircraft, and the Air Force to transfer surplus A-10 aircraft to the Army and Marine Corps as replacements. The committee notes that the Air Force still intends to inactivate nearly 200 A-10 aircraft, which could be used by the Army to replace OV-1s.

The committee evaluated the Marine Corps requirements and, on balance, believes that it is not appropriate to replace OV-10 aircraft with A-10 aircraft at this time. Consequently, the committee recommends a provision that would eliminate the requirement to transfer A-10s to the Marine Corps. The committee has not received any persuasive evidence that the Army no longer needs observation aircraft and that Army pilots cannot operate A-10s. As such, the committee insists that the transfer of A-10s to the Army proceed.

TREATMENT OF ALLIED CONTRIBUTIONS FOR COOPERATIVE PROJECTS

When the United States engages in a cooperative acquisition program with one or more of its allies, the participants agree to share the program's costs and work. Sometimes an allied partner will choose to carry out its share of the work by contracting for the work to be performed by a U.S. military Service's facility. However, under section 3302(b) of title 31, United States Code, the U.S. facility may not accept payment from the allied partner. Instead, that money must be deposited in the General Fund of the Treasury. As a result, the allied partner may contract for the work to be performed by a private company which would charge more than the U.S. government facility.

A similar problem arises when the joint project office is located in the United States. The U.S. military Service sponsoring the project cannot accept payment from its allied partners for office space, equipment, travel, and similar services. These expenses become a host nation in-kind contribution to the project which is difficult to reconcile with allied partners' contributions.

The committee recommends a provision to correct this problem. The provision would authorize allied funds contributed to cooperative projects to be credited to Defense Department appropriation accounts or funds. These funds could then be obligated to cover project costs.

BURDENSHARING CONTRIBUTIONS BY KOREA

Beginning in fiscal year 1991, South Korea has agreed to pay more of the costs of stationing U.S. military forces in that country. In particular, South Korea will transfer funds to the United States for (a) a portion of the cost of South Korean employees of the U.S. military, and (b) a new military construction category that will supplement the existing South Korean-funded construction program. In fiscal year 1991, contributions in these two cost categories will amount to $73 million.

The committee welcomes this improvement in burdensharing. South Korea's agreement to offset a portion of the local national labor costs incurred by the U.S. military is especially noteworthy. Because South Korea's fiscal year 1991 contribution in this new category will represent only 13 percent of the total requirement, the committee hopes that this share will grow substantially in the future.

The committee recommends a provision that would authorize the Secretary of Defense to accept South Korea's cash contributions during fiscal years 1992 and 1993. The provision would specify that these contributions could be used only for U.S. local national labor costs and military construction in South Korea. During its consideration of the fiscal year 1994 defense budget request, the committee will review the operation of this mechanism to determine if it should be continued or changed.

RECIPROCAL PORT AND AIRPORT SERVICES

Section 7227 of title 10, United States Code, authorizes the Navy to extend routine port and airport services on a reciprocal basis only to the naval ships and military aircraft of "allied" or "friendly" countries. The only means by which such services may be provided for ship and air visits from "non-allied" or "non-friendly" countries is to charge the country or to charge the visit to the Navy's official representation fund.

Because this representation fund is small in size, problems have arisen in paying for port services during Soviet naval ship visits to the United States. When U.S. naval vessels have made port calls in the Soviet Union, there has been no charge for port services. To make it easier for the U.S. Navy to reciprocate, the committee recommends a provision that would amend section 7227 to cover countries such as the Soviet Union.

EXTENSION OF AUTHORITY FOR TRANSFER OF EXCESS DEFENSE EQUIPMENT TO CERTAIN NATIONS

Section 1205 of the National Defense Authorization Act for Fiscal Year 1987 originally granted to the President the authority to transfer excess defense articles free of charge to certain NATO nations (Greece, Portugal and Turkey). The committee intended that the equipment to be transferred would be excess by U.S. standards, but would still make a military contribution to the defense of the southern flank of NATO. In the Department of Defense Appropriations Act for Fiscal Year 1988, this authority was extended to include major non-NATO allies on the southern and southeastern flank of NATO (Egypt and Israel). This program was further expanded by the Foreign Operations, Export Financing, and Related Programs Appropriations Act for Fiscal Year 1991 which extended it to include certain nations which contributed armed forces in support of Operation Desert Shield/Desert Storm.

The committee believes that this authority has provided a valuable and low-cost method for transferring U.S. military equipment to important allies which need assistance in modernizing their military capabilities. Since this authority expires at the end of fiscal year 1991, the committee recommends a provision that would make it permanent.

AIR DEFENSE AGREEMENT WITH ITALY

In 1988, the United States and Italy reached an agreement on air defense in Italy. This agreement is similar in concept to earlier air defense agreements between the United States and Great Britain, Germany, Turkey, and the Netherlands.

Under the terms of the 1988 agreement, the United States will transfer to Italy the radars, engagement control stations, and communications systems for 20 Patriot air defense batteries. The missiles and launchers for these batteries will be produced in Italy. In exchange, Italy agreed to supply and man short-range air defense systems at four U.S. military bases in Italy. In addition, the Italian Patriot systems will provide high-altitude air defense for U.S. bases in Italy.

During fiscal year 1992, the United States will begin to transfer Patriot equipment to Italy, and an Italian short-range air defense system will be fielded at the first U.S. base. Legislation is necessary to implement this exchange because there is no existing statutory authority to transfer military equipment under such an arrangement to Italy.

Therefore, the committee recommends a provision that would authorize the Secretary of Defense to carry out the air defense agreement with Italy. The provision is very similar to two earlier provisions that were enacted into law for the transfer of AWACS aircraft to NATO (section 103 of the Department of Defense Authorization Act for Fiscal Year 1982) and the transfer of Patriot equipment to Germany (section 1007 of the Department of Defense Authorization Act for Fiscal Year 1985).

OVERSEAS TRAINING BY SPECIAL OPERATIONS FORCES

To properly develop and maintain their skills, special operations forces must conduct a great deal of their training overseas, often in cooperation with foreign military forces. Overseas training enables special operations forces to develop language skills and familiarity with local geography and cultures. In addition, it gives them an opportunity to practice one of their most important functions—training local military forces in internal defense and unconventional warfare.

Like artillerymen and tankers who must, in peacetime, practice artillery and tank fire, special operations forces who are trainers must practice training. One of the most effective ways in which they can improve their training methods is to practice training in countries in which they may have to fight or train local forces in a contingency. Although the purpose of such overseas deployments is to train U.S. forces, they also often benefit local military forces. This indirect benefit to foreign forces is unavoidable if, for example, the training plan for an Army Special Forces team requires the team members to improve their training skills in small arms fire or parachuting.

The authority of the U.S. Special Operations Command and other combatant commands to use operation and maintenance (O&M) funds for these kinds of overseas training deployments is unclear. Therefore, the committee recommends a provision that would clarify this authority. The provision specifies that the primary purpose of the training shall be to train U.S. special operations forces.

The provision would also authorize the combatant commands to pay the incremental expenses that friendly developing countries would incur as the direct result of training with U.S. forces. This authority to pay incremental expenses is very similar to the authority available to the Secretary of Defense for combined exercises (section 2010 of title 10, United States Code).

TECHNICAL DATA PACKAGES FOR LARGE-CALIBER CANNON

Section 4542 of title 10, United States Code, authorizes the Secretary of the Army to transfer, under certain conditions, technical data packages for large-caliber cannon to NATO and major non-NATO allies. Such a transfer would have to clearly benefit the U.S. production base for cannon and would have to allow Watervliet Arsenal, New York to produce a share of the foreign country's cannon requirements.

Until 1989, technical data packages for large-caliber cannon could be transferred to any friendly foreign country. However, in the course of modifying section 4542 with other unrelated changes, section 806 of the National Defense Authorization Act for Fiscal Years 1990 and 1991 inadvertently narrowed its coverage to only U.S. allies.

The Department of Defense has received requests from friendly countries which are not U.S. allies for assistance in co-producing large-caliber cannon equipment. Most recently, Switzerland has expressed interest in such a co-production agreement. Because these co-production agreements benefit the U.S. production base for cannon, the committee recommends a provision that would restore "friendly foreign countries (as determined by the Secretary of Defense in consultation with the Secretary of State)" to the coverage of section 4542 of title 10. The provision would also correct certain internal citation errors in section 4542.

FOREIGN COMPARATIVE TESTING

Section 931 of the National Defense Authorization Act for Fiscal Years 1990 and 1991 created the Foreign Comparative Testing (FCT) program by consolidating the Foreign Weapons Evaluation (FWE) program and the NATO Cooperative Development Testing program. In the course of this consolidation, "friendly" foreign countries that had previously been eligible to participate in the FWE program (in addition to "allied" countries) were inadvertently excluded from the new FCT program. The committee recommends a provision that would enable "friendly" foreign countries to continue to participate in the Foreign Comparative Testing program.

The committee is encouraged by the success of the FCT program. Beginning in 1988, the Office of the Secretary of Defense tightened the criteria and procedures for reviewing and approving the testing candidates that are submitted by the military Services. The result has been a much more disciplined program that is focused on projects that are more likely to be procured by the Services.

The committee believes that the Foreign Comparative Testing program will continue to be effective only if it adheres to disciplined review and approval criteria. In particular, the program should not fund the kinds of projects that were among those approved before 1988: programs that lack a realistic acquisition strategy, a thorough market survey, or operational requirements that may never be approved by the Services. In addition, projects that are primarily "developmental" in nature should not be funded in the FCT program. The committee will continue to closely monitor the program to ensure that its current criteria are followed.

NATIONAL GUARD READINESS

The committee notes the controversy concerning the three Army National Guard round-out brigades that were mobilized during Operation Desert Shield/Desert Storm. The committee believes that the criticism of the round-out brigades is misplaced. The round-out concept never presumed that round-out brigades were immediately ready for deployment. The round-out concept always anticipated a period of post-mobilization training. All three of the brigades underwent post-mobilization training, met combat proficiency standards, and would have been deployed to Southwest Asia had they been needed.

The committee is concerned, however, over the question of responsibility for the day-to-day readiness of National Guard combat units. The committee notes that to some degree, responsibility for day-to-day readiness rests with five separate parties: the unit commanders, the state adjutants general, the National Guard Bureau, the Department of the Army, and the parent division commanders for the round-out brigades or the capstone-designated active duty counterparts for other combat units in the Guard.

All of these parties are involved to some degree in command authority, allocating resources, and directing and supporting training activities. But that raises important questions: Who is ultimately responsible? What role is each party supposed to play, and is that role being met? The committee believes that the Defense Department should undertake a thorough review of roles and responsibilities as it relates to peacetime readiness of National Guard combat units.

The committee directs the Secretary of Defense to undertake a comprehensive review and to report his recommendations to the congressional defense committees. That report shall be provided to Congress by January 4, 1992.

WEST COAST AMMUNITION PORT

One recurring theme in testimony by past and present Commanders-in-Chief of the U.S. Transportation Command has been that transportation should be considered from a system perspective, and not viewed simply as a collection of ships, airplanes, or trucks. For example, one significant argument given for the C-17 aircraft is that its ability to back-up will enable greater throughput at airports.

With this in mind, the committee draws attention to the need to consider seaport facilities as part of a balanced approach to sealift. Most containerized cargo can be loaded at commercial ports, and such ports can even handle wheeled and tracked vehicles and helicopters. However, explosives should not be handled at commercial ports for safety reasons. And as greater use is made of standard shipping containers for transport of ammunition and other explosives, improvements will be needed at the government port facilities where this material is loaded aboard ships.

The East Coast already has one modern facility for loading containerized ammunition aboard ships in North Carolina. No similar facility exists on the West Coast, although a requirement has been identified and extensively studied. Funding for such a facility has not been included in the amended budget request.

The committee directs the Secretary of Defense to submit a report which identifies the preferred location for a West Coast facility for loading containerized ammunition aboard ships; the estimated cost to complete such facility; and the appropriate Service (or Defense Agency) which should fund the necessary construction. This letter report shall be submitted to the Committees on Armed Services and Appropriations of the Senate and the House of Representatives together with the amended budget submission for fiscal year 1993.

DIVISION B—MILITARY CONSTRUCTION AUTHORIZATIONS

The purpose of Division B is to provide military construction authorization and related authority to support the Military Departments during fiscal years 1992 and 1993. The administration's amended budget request is reflected in S.875 as introduced by request. This division, as approved by the Committee on Armed Services, totals $8,708,718,000 in authorization for appropriations in fiscal year 1992 and $5,393,234,000 in fiscal year 1993.

These authorizations provide construction in support of the military Services, the Reserve components, Defense Agencies, NATO Infrastructure, and military family housing requirements.

A brief summary of the fiscal year 1992 authorization follows:

	FY1992 Request	Senate Change	Senate Authorized
Summary:			
Total Military Construction Army	851,300	14,200	865,500
Total Military Construction Navy	657,800	210,981	868,781
Total Military Construction Air Force	1,061,900	-109,610	952,290
Total Mil Construction Defense Agencies	571,600	86,840	658,440
Total Milcon Army National Guard	50,400	72,474	122,874
Total Milcon Air National Guard	131,800	52,500	184,300
Total Milcon Army Reserve	57,500	8,741	66,241
Total Milcon Navy Reserve	20,900	36,000	56,900
Total Milcon Air Force Reserve	20,800	0	20,800
NATO Infrastructure	358,800	-44,383	314,417
Base Realignment And Closure	633,600	41,000	674,600
Base Closure 1990	100,000	197,000	297,000
Total Military Construction	4,516,400	565,743	5,082,143
Total Army Family Housing	1,534,425	4,550	1,538,975
Total Navy Family Housing	879,900	16,000	895,900
Total Air Force Family Housing	1,081,500	0	1,081,500
Total Defense Agencies Family Housing	26,200	0	26,200
Total Homeowner's Assistance	84,000	0	84,000
Total Family Housing	3,606,025	20,550	3,626,575
Total Mil Construction/Family Housing	8,122,425	586,293	8,708,718
Component Totals:			
Army	2,469,725	18,750	2,488,475
Navy	1,537,700	226,981	1,764,681
Air Force	2,143,400	-109,610	2,033,790
Defense Agencies	1,331,400	324,840	1,656,240
NATO Infrastructure	358,800	-44,383	314,417
Guard and Reserve	281,400	169,715	451,115
Total Mil Construction/Family Housing	8,122,425	586,293	8,708,718

COMMITTEE ACTION, FISCAL YEAR 1992

The committee authorized the Defense Department's military construction program at very near the requested funding level.

The committee authorizes through the military construction accounts over $400 million in projects which had been requested by the administration for funding through the Defense Business Operations Fund. The committee also increases the authorization for the Base Closure Accounts to fully fund the fiscal year 1992 requirement for environmental restoration at installations identified for closure by the 1988 and 1991 base closure commissions.

The committee made the following adjustments to the Defense Department's fiscal year 1992 military construction request:

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		MILITARY CONSTRUCTION CHANGES:			
		------------- ARMY -------------			
ALASKA	FORT RICHARDSON	UPGRADE PHYSICAL FITNESS CENTER		7,000	7,000
ALABAMA	ANNISTON ARMY DEPOT	MISSILE MAINTENANCE FACILITY		5,500	5,500
INDIANA	FORT BENJAMIN HARRISON	ADMINISTRATION BUILDING	25,000	-25,000	0
KANSAS	FORT RILEY	WATER DISTRIBUTION MONITORING SYSTEM		800	800
MARYLAND	ABERDEEN PROVING GROUND	PHYSICAL FITNESS CENTER		3,900	3,900
MARYLAND	FORT RITCHIE	FIRE STATION		1,500	1,500
NEW YORK	U S MILITARY ACADEMY	ADMINISTRATION BUILDING MODIFICATION	7,300	1,500	8,800
PENNSYLVANIA	LETTERKENNY ARMY DEPOT	TRUCK BLOCKING/LOADING CENTER		3,150	3,150
PENNSYLVANIA	TOBYHANNA ARMY DEPOT	TACTICAL COMPONENT REBUILD FACILITY		8,200	8,200
TEXAS	RED RIVER ARMY DEPOT	GENERAL PURPOSE WAREHOUSE		1,100	1,100
TEXAS	RED RIVER ARMY DEPOT	HYDRAULIC SHOP ALTERATIONS		920	920
VIRGINIA	FORT BELVOIR	INFORMATION SYSTEM FACILITY		14,000	14,000
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	GENERAL DAVIS-BACON REDUCTION		-40,500	-40,500
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	89,600	32,130	121,730

		TOTAL ARMY CHANGES		14,200	

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		------------- NAVY -------------			
CALIFORNIA	CHINA LAKE NAVAL WEAPONS CENTER	INTEGRATED NAVAL AIR DEFENSE FACILITY		16,600	16,600
CALIFORNIA	CONCORD NAVAL WEAPONS STATION ANNEX	MISSILE TEST CELL		1,250	1,250
CALIFORNIA	FALLBROOK NAVAL WEAPONS STATION ANNEX	MISSILE PRODUCTION FACILITY		9,700	9,700
CALIFORNIA	SAN DIEGO NAVAL SUPPLY CENTER	FIRE PROTECTION SYSTEM		1,750	1,750
CALIFORNIA	SAN DIEGO NAVAL PUBLIC WORKS CENTER	AUTO VEHICLE MAINTENANCE SHOP		9,300	9,300
CALIFORNIA	SAN DIEGO NAVAL PUBLIC WORKS CENTER	ELECTRICAL DISTRIBUTION SYSTEM UPGRADE		7,500	7,500
CALIFORNIA	SEAL BEACH NAVAL WEAPONS STATION	TOMAHAWK MISSILE MAGAZINE		3,780	3,780
FLORIDA	JACKSONVILLE NAVAL AVIATION DEPOT	INDUSTRIAL WASTE TREATMENT FACILITY		3,300	3,300
FLORIDA	PENSACOLA NAVAL SUPPLY CENTER	COLD STORAGE WAREHOUSE		5,700	5,700
GEORGIA	MCINTOSH COUNTY	LAND ACQUISITION, PHASE II		2,881	2,881
HAWAII	PEARL HARBOR NAVAL SHIPYARD	FIRE PROTECTION SYSTEM		800	800
HAWAII	PEARL HARBOR NAVY PUBLIC WORKS CENTER	SEWAGE SYSTEM IMPROVEMENTS		1,650	1,650
HAWAII	PEARL HARBOR NAVY PUBLIC WORKS CENTER	WASTEWATER TREATMENT PLANT EXPANSION		10,540	10,540
HAWAII	PEARL HARBOR NAVY PUBLIC WORKS CENTER	WASTEWATER TREATMENT PLANT MODIFICATION		1,250	1,250
INDIANA	CRANE NAVAL WEAPONS SUPPORT CENTER	PEST CONTROL FACILITY		750	750
MARYLAND	INDIAN HEAD NAVAL ORDNANCE STATION	INDUSTRIAL WASTEWATER TREATMENT FAC(II)		6,600	6,600
MISSISSIPPI	GULFPORT	SEABEE WAREHOUSE		7,000	7,000
NORTH CAROLINA	CHERRY POINT NAVAL AVIATION DEPOT	AIRCRAFT ACCESSORIES OVERHAUL SHOP		7,700	7,700
NEW JERSEY	EARLE NAVAL WEAPONS STATION	TRESTLE		36,500	36,500
NEVADA	FALLON NAVAL AIR STATION	BACHELOR ENLISTED QUARTERS		5,700	5,700
SOUTH CAROLINA	CHARLESTON NAVAL WEAPONS STATION	HIGH EXPLOSIVE MAGAZINE		1,100	1,100
SOUTH CAROLINA	CHARLESTON NAVAL WEAPONS STATION	TOMAHAWK MISSILE MAGAZINE		2,150	2,150

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
VIRGINIA	DAHLGREN NAVAL SURFACE WARFARE CENTER	ELECTRONICS SYSTEMS LABORATORY		8,100	8,100
VIRGINIA	DAHLGREN NAVAL SURFACE WARFARE CENTER	FLEET REQUIREMENTS SUPPORT BUILDING		10,180	10,180
VIRGINIA	NORFOLK NAVAL SUPPLY CENTER	ADMINISTRATIVE OFFICE		1,250	1,250
VIRGINIA	NORFOLK NAVY PUBLIC WORKS CENTER	ELECTRICAL DISTRIBUTION LINES		3,150	3,150
VIRGINIA	NORFOLK NAVY PUBLIC WORKS CENTER	STEAM DISTRIBUTION SYS IMPROVEMENTS		4,150	4,150
VIRGINIA	YORKTOWN NAVAL WEAPONS STATION	TOMAHAWK MISSILE MAGAZINE		4,650	4,650
WASHINGTON	BREMERTON PUGET SOUND NAVAL SUPPLY CENTER	HAZARDOUS AND FLAMMABLE STORAGE		12,550	12,550
WASHINGTON	BREMERTON PUGET SOUND NAVAL SHIPYARD	INACTIVE SUBMARINE MOORING FACILITY		3,300	3,300
WASHINGTON	BREMERTON PUGET SOUND NAVAL SHIPYARD	INDUSTRIAL SUPPORT COMPLEX		23,500	23,500
WASHINGTON	BREMERTON PUGET SOUND NAVAL SHIPYARD	MOORING PLATFORM		1,200	1,200
WASHINGTON	BREMERTON PUGET SOUND NAVAL SHIPYARD	PIER UPGRADE		11,700	11,700
WEST VIRGINIA	GREEN BANK	ALTER OPERATIONS CENTER		5,400	5,400
GUANTANAMO BAY, CUBA	NAVAL STATION	WATERFRONT OPERATIONS BUILDING	2,750	-2,750	0
GUAM	GUAM PUBLIC WORKS CENTER	OIL SPILL PREVENTION		670	670
ICELAND	KEFLAVIK NAVAL AIR STATION	FUEL FACILITIES, INCREMENT VII		9,300	9,300
OVERSEAS CLASSIFIED	OVERSEAS CLASSIFIED	SATELLITE TERMINAL	8,770	-8,770	0
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	GENERAL DAVIS-BACON REDUCTION		-31,500	-31,500
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	77,200	11,400	88,600
		TOTAL NAVY CHANGES		210,981	

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		----------- AIR FORCE -----------			
ALASKA	EIELSON AFB	LANTIRN FACILITY		4,500	4,500
ARIZONA	DAVIS-MONTHAN AFB	WASTE WATER TREATMENT PLANT		4,100	4,100
ARIZONA	WILLIAMS AFB	SPECIALIZED UPT MAINTENANCE SUPPORT	5,700	-5,700	0
CALIFORNIA	CASTLE AFB	ADD/ALTER WEAPONS/RELEASE SYS SHOP/STOR	3,000	-3,000	0
CALIFORNIA	CASTLE AFB	WAR READINESS SPARE KITS WAREHOUSE	1,300	-1,300	0
CALIFORNIA	TRAVIS AFB	SOUND SUPPRESSOR SUPPORT FACILITY		990	990
CALIFORNIA	VANDENBERG AFB	LAND ACQUISITION PHASE II	80,000	-80,000	0
GEORGIA	ROBINS AFB	INDUSTRIAL WASTEWATER OUTFALL LINE/LAND		1,700	1,700
GEORGIA	ROBINS AFB	JSTARS AUTOMATIC TEST FACILITY		2,500	2,500
GEORGIA	ROBINS AFB	MISSION SIMULATOR/SOFTWARE SPT FAC		9,200	9,200
GEORGIA	ROBINS AFB	FLIGHT SIMULATOR		2,200	2,200
GEORGIA	ROBINS AFB	EXTEND UTILITIES/COMM SYSTEM		2,650	2,650
GEORGIA	ROBINS AFB	ALTER TACTICAL TRAINING FACILITY		2,250	2,250
LOUISIANA	BARKSDALE AFB	ENGINE TEST PAD		2,000	2,000
LOUISIANA	BARKSDALE AFB	WATER SYSTEM MODIFICATION		1,700	1,700
LOUISIANA	BARKSDALE AFB	ELECTRICAL SYSTEM UPGRADE		1,200	1,200
MARYLAND	ANDREWS AFB	DEFENSE ACCESS ROAD		6,000	6,000
MISSOURI	WHITEMAN AFB	B-2 ADD TO AND ALTER FIRE STATION	5,100	-5,100	0
MISSOURI	WHITEMAN AFB	B-2 ADD TO AND ALTER UTILITY SYSTEMS	6,700	-6,700	0
MISSOURI	WHITEMAN AFB	B-2 ADD/ALTER PHYSICAL FITNESS CENTER	3,800	-3,800	0
MISSOURI	WHITEMAN AFB	B-2 AREA SECURITY IMPROVEMENTS	7,850	-7,850	0
MISSOURI	WHITEMAN AFB	B-2 CONVENTIONAL MUNITIONS SUPPORT FAC	1,750	-1,750	0
MISSOURI	WHITEMAN AFB	B-2 DEFENSE ACCESS ROADS	5,050	-5,050	0
MISSOURI	WHITEMAN AFB	B-2 ENGINE MAINTENANCE SHOP	3,400	-3,400	0
MISSOURI	WHITEMAN AFB	B-2 FLIGHT SIMULATOR FACILITY	4,050	-4,050	0
MISSOURI	WHITEMAN AFB	B-2 HAZARDOUS MATERIAL STORAGE	1,700	-1,700	0
MISSOURI	WHITEMAN AFB	B-2 IMPACT AID	1,000	-1,000	0
MISSOURI	WHITEMAN AFB	B-2 MUNITIONS STORAGE IGLOOS	4,000	-4,000	0
MISSOURI	WHITEMAN AFB	B-2 SURVIVAL EQUIPMENT FACILITY	1,000	-1,000	0
MISSOURI	WHITEMAN AFB	B-2 WEAPONS RECEIVING & PROCESSING FAC	3,100	-3,100	0
MISSOURI	WHITEMAN AFB	B-2 WPNS STORAGE AREA SUPPLY WAREHOUSE	1,000	-1,000	0

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
NEBRASKA	OFFUTT AFB	WORLDWIDE AIRBORNE COMMAND POST FAC	12,500	-12,500	0
NEW MEXICO	HOLLOMAN AFB	ADD/ALTER A/C MAINTENANCE COMPLEX	5,100	-5,100	0
OKLAHOMA	TINKER AFB	UPGRADE WATER SUPPLY & STORAGE DIST SYS		3,700	3,700
TEXAS	KELLY AFB	WEAPONS SYSTEM SUPPORT FACILITY		10,000	10,000
UTAH	HILL AFB	DEPOT PRODUCTION SUPPORT FACILITY		4,050	4,050
UTAH	HILL AFB	MISSILE MAINTENANCE SHOP		2,450	2,450
UTAH	HILL AFB	WEAPONS AND RELEASE SYSTEMS SHOP		2,700	2,700
CONUS CLASSIFIED	CLASSIFIED LOCATION	ADD TO AND ALTER SQUADRON OPERATIONS FA	2,000	-2,000	0
CONUS CLASSIFIED	CLASSIFIED LOCATION	ADD/ALTER AIRCRAFT MAINTENANCE UNIT FAC	800	-800	0
CONUS CLASSIFIED	CLASSIFIED LOCATION	CONSTR (AGS) BASE SUPP &EQUIP WAREHOUSE	3,100	-3,100	0
CONUS CLASSIFIED	CLASSIFIED LOCATION	MISSION SIMULATOR AND SOFTWARE SPT FAC	8,300	-8,300	0
CONUS CLASSIFIED	CLASSIFIED LOCATION	TACTICAL TRAINING SQUADRON FACILITY	2,200	-2,200	0
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	67,700	50,000	117,700
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	DAVIS-BACON GENERAL REDUCTION		-50,000	-50,000
		TOTAL AIR FORCE CHANGES		-109,610	

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		-------- DEFENSE AGENCIES -------			
CALIFORNIA	TRACY DEFENSE DEPOT	WATER WELLS		2,000	2,000
FLORIDA	JACKSONVILLE DEFENSE FUEL SUPPORT POINT	FIRE PROTECTION SYSTEM		2,200	2,200
FLORIDA	PENSACOLA DEFENSE FUEL SUPPORT POINT	FUEL TANKAGE		16,000	16,000
GEORGIA	FORT BENNING	PARACHUTE DRYING FACILITY		3,900	3,900
GEORGIA	FORT STEWART	ELEMENTARY SCHOOL REPLACEMENT		6,951	6,951
HAWAII	TRIPLER ARMY HOSPITAL	MEDICAL EDUCATION CENTER		3,500	3,500
NORTH CAROLINA	FORT BRAGG	SPECIAL OPERATIONS BATTALION HQ		6,000	6,000
OHIO	COLUMBUS DEFENSE CONSTRUCTION SUPPLY CTR	OPERATIONS CENTER		89,000	89,000
OHIO	DAYTON DEFENSE ELECTRONICS SUPPLY STATION	FIRE AND SECURITY STATION		2,000	2,000
SOUTH CAROLINA	MCAS BEAUFORD	ELEMENTARY SCHOOL MODERNIZATION		989	989
VIRGINIA	CRANEY IS DEF FUEL SUPPORT POINT, NORFOLK	FUEL TANKAGE		19,800	19,800
VIRGINIA	PENTAGON BUILDING COMPLEX	PENTAGON CLASSIFIED WASTE INCINERATOR	4,700	-4,700	0
VIRGINIA	PENTAGON BUILDING COMPLEX	PENTAGON HEATING AND REFRIGERATION PLAN	75,400	-75,400	0
DIEGO GARCIA	DEFENSE FUEL SUPPORT POINT	FUEL TANKAGE		16,100	16,100
WORLDWIDE UNSPECIFIED	OSD MILCON	PLANNING AND DESIGN, SOF	1,700	1,500	3,200
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	CONFORMING STORAGE FACILITIES		7,000	7,000
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN, WASH HQ SERV	10,000	-10,000	0
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	21,800	27,000	48,800
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	DAVIS-BACON GENERAL REDUCTION		-27,000	-27,000
		TOTAL DEFENSE AGENCIES CHANGES		86,840	

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		------ ARMY NATIONAL GUARD -------			
FLORIDA	CAMP BLANDING	LAW RANGE		550	550
FLORIDA	CAMP BLANDING	AVIATION FUEL FACILITY		275	275
FLORIDA	CAMP BLANDING	MAC RANGE		954	954
FLORIDA	WAUCHULA	ARMORY		1,077	1,077
IDAHO	GOWEN FIELD	ARMORY		5,995	5,995
ILLINOIS	NORTH RIVERSIDE	OMS MODIFICATIONS		362	362
MISSISSIPPI	MARKS	ARMORY		200	200
MISSISSIPPI	TUPELO	OMS		992	992
MISSISSIPPI	CAMP SHELBY	ADAL MAINTENANCE FACILITY		600	600
MISSISSIPPI	CAMP SHELBY	PAVE TRAINING ROADS		1,200	1,200
MONTANA	FORT HARRISON	ARMORY		3,400	3,400
NEBRASKA	KEARNEY	OMS		690	690
NEBRASKA	KEARNEY	ARMORY		2,215	2,215
NEBRASKA	CAMP ASHLAND	BARRACKS		6,613	6,613
NEBRASKA	LINCOLN	USPFO WAREHOUSE		2,289	2,289
NEW MEXICO	SANTA FE	MILITARY EDUCATION FACILITY		3,764	3,764
NEW MEXICO	SANTA FE	AMMUNITION BUNKER		340	340
NEVADA	WASHOE COUNTY	OMS		1,050	1,050
NEVADA	YERRINGTON	OMS		770	770
NORTH DAKOTA	GRAND FORKS	ARMORY		6,200	6,200
NORTH DAKOTA	GRAND FORKS	OMS		3,800	3,800
SOUTH CAROLINA	MANNING	ARMORY		1,500	1,500
SOUTH CAROLINA	LEESBURG	MAINTENANCE SHOP		2,200	2,200
SOUTH CAROLINA	LEESBURG	SEWER SYSTEM		1,200	1,200
TENNESSEE	FAYETTESVILLE	ARMORY		892	892
TENNESSEE	IRWIN	ARMORY		1,094	1,094
TENNESSEE	LIVINGSTON	ARMORY		1,161	1,161
TEXAS	CAMP MABRY	SUPPORT MAINTENANCE SHOP		5,992	5,992
TEXAS	CAMP SWIFT	ARMORY		1,643	1,643
UTAH	UTAH COUNTY	ARMORY		2,860	2,860
UTAH	UTAH COUNTY	OMS		996	996
WEST VIRGINIA	HUNTINGTON	GUARD/RESERVE CENTER		9,600	9,600

		TOTAL ARMY GUARD CHANGES		72,474	

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		------ AIR NATIONAL GUARD -------			
ALASKA	EIELSON AFB	SQUADRON OPERATIONS		4,600	4,600
ALASKA	KULIS ANGB	FIRE STATION		400	400
ARIZONA	TUSCON IAP	MAINTENANCE HANGAR		7,900	7,900
ARIZONA	LIBBY AAF	UPGRADE RUNWAY LIGHTS		1,200	1,200
FLORIDA	JACKSONVILLE AIRPORT	ADAL VEHICLE MAINTENANCE FACILITY		700	700
IDAHO	GOWEN FIELD	POWER CHECK PAD		800	800
INDIANA	HULMAN REGIONAL AIRPORT	MUNITIONS MAINTENANCE & STORAGE FACILITY		2,200	2,200
KANSAS	MCCONNELL AFB	ADD TO CORROSION CONTROL FACILITY	550	200	750
KENTUCKY	STANDIFORD	RELOCATION, PHASE II		5,000	5,000
MASSACHUSETTS	BARNES AIRPORT	ENGINE CHECK FACILITY		1,250	1,250
MASSACHUSETTS	BARNES AIRPORT	AIRCRAFT BARRIER		2,050	2,050
MICHIGAN	WK KELLOGG REGIONAL AIRPORT	ENGINE MAINTENANCE SHOP		2,250	2,250
NEVADA	RENO AIRPORT	POWER CHECK PAD		700	700
NEW HAMPSHIRE	PEASE APT	ADAL SQUADRON OPERATIONS		1,450	1,450
NORTH DAKOTA	HECTOR FIELD	REPLACE FUEL TANKS		1,500	1,500
OKLAHOMA	TULSA AIRPORT	FUEL CELL CENTER/CORROSION FACILITY		2,750	2,750
OKLAHOMA	TULSA AIRPORT	AVIONICS/ECM SHOP		1,050	1,050
TENNESSEE	MEMPHIS ANGB	POWER CHECK PAD		800	800
TENNESSEE	MEMPHIS ANGB	AERIAL PORT TRAINING FACILITY		1,650	1,650
TENNESSEE	MEMPHIS ANGB	FIRE STATION		1,300	1,300
VERMONT	BURLINGTON IAP	CIVIL ENGINEERING SHOP		1,850	1,850
WEST VIRGINIA	MARTINSBURG AIRPORT	VEHICLE MAINTENANCE COMPLEX		1,700	1,700
WEST VIRGINIA	MARTINSBURG AIRPORT	SMALL ARMS RANGE		750	750
WEST VIRGINIA	MARTINSBURG AIRPORT	FIRE STATION		1,100	1,100
WEST VIRGINIA	YAEGAR AIRPORT	SECURITY POLICE OPERATIONS		650	650
WYOMING	CHEYENNE MAP	AVIONICS MAINTENANCE SHOP		2,200	2,200
WYOMING	CHEYENNE MAP	CORROSION CONTROL FACILITY		3,500	3,500
WYOMING	CHEYENNE MAP	REPLACE FUEL STORAGE TANKS		700	700
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	15,200	300	15,500

		TOTAL AIR GUARD CHANGES		52,500	

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		--------- ARMY RESERVE ----------			
MASSACHUSETTS	TAUTON	USAR CENTER		3,526	3,526
OREGON	THIS BEND	ARMED FORCES RESERVE CENTER		2,711	2,711
TEXAS	CONROE	ADDN/ALT TO USARC/AVN SPT FAC/OMS	9,855	1,504	11,359
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	5,400	1,000	6,400
		TOTAL ARMY RESERVE CHANGES		8,741	
		--------- NAVY RESERVE ----------			
TENNESSEE	NAS MILLINGTON	AIRCRAFT MAINTENANCE HANGAR		10,900	10,900
WEST VIRGINIA	MARTINSBURG	C-130 SUPPORT FACILITIES		25,100	25,100
		TOTAL NAVY RESERVE CHANGES		36,000	
WORLDWIDE UNSPECIFIED	OSD MILCON	NATO INFRASTRUCTURE	358,800	-44,383	314,417
WORLDWIDE UNSPECIFIED	BASE REALIGNMENT AND CLOSURE ACCOUNT	BASE REALIGNMENT AND CLOSURE	633,600	41,000	674,600
WORLDWIDE UNSPECIFIED	BASE CLOSURE ACCOUNT 1990	BASE CLOSURE 1990	100,000	197,000	297,000

State	Installation	Project	FY1992 Request	Senate Change	Senate Authorized
		FAMILY HOUSING CHANGES:			
		------------- ARMY -------------			
GEORGIA	CAMP MERRILL	NEW CONSTRUCTION (40)		4,550	4,550
		------------- NAVY -------------			
ILLINOIS	NAS GLENVIEW	NEW CONSTRUCTION (200)		16,000	16,000
		----------- AIR FORCE -----------			
CALIFORNIA	CASTLE AFB	FAMILY HOUSING (114 UNITS)	10,517	-10,517	0
CALIFORNIA	MARCH AFB	FAMILY HOUSING (85 UNITS)		10,517	10,517

		TOTAL AIR FORCE HOUSING CHANGES		0	

COMMITTEE ACTION, FISCAL YEAR 1993

The committee authorizes for appropriation approximately 74 percent of the Defense Department's request of $7,261,500,000 for fiscal year 1993. Following procedures last used during its review of the biennial budget request for fiscal years 1990 and 1991, the committee authorized most lump sum authorizations, such as planning and design, minor construction, and family housing operations and maintenance.

The committee defers consideration of the administration's request to transfer approximately $1.9 billion in maintenance and minor construction funds from the operations and maintenance accounts to the military construction accounts. These funds were retained in the operations and maintenance accounts of this bill.

The committee believes that the state of facility decay and the increasing backlog of unfunded repair and replacement requirements justify a significant reappraisal of Defense Department priorities in developing the administration's fiscal year 1993 amended budget request. The committee does not believe that the virtual elimination of new construction recommended in the fiscal year 1993 amended budget request presented to Congress this year represents a balanced approach toward meeting competing Department needs.

A summary of the fiscal year 1993 authorization is as follows:

	FY1993 Request	Senate Change	Senate Authorized
Summary:			
Total Military Construction Army	959,800	-565,200	394,600
Total Military Construction Navy	743,700	-546,600	197,100
Total Military Construction Air Force	780,500	-567,400	213,100
Total Mil Construction Defense Agencies	236,100	-57,900	178,200
Total Milcon Army National Guard	54,100	-16,573	37,527
Total Milcon Air National Guard	40,600	980	41,580
Total Milcon Army Reserve	28,200	-21,200	7,000
Total Milcon Navy Reserve	26,400	-22,500	3,900
Total Milcon Air Force Reserve	36,700	-32,000	4,700
NATO Infrastructure	266,200	-40,000	226,200
Base Realignment And Closure	440,700	0	440,700
Base Closure 1990	100,000	0	100,000
Total Military Construction	3,713,000	-1,868,393	1,844,607
Total Army Family Housing	1,476,927	0	1,476,927
Total Navy Family Housing	792,900	0	792,900
Total Air Force Family Housing	1,167,000	0	1,167,000
Total Defense Agencies Family Housing	26,800	0	26,800
Total Homeowner's Assistance	85,000	0	85,000
Total Family Housing	3,548,627	0	3,548,627
Total Mil Construction/Family Housing	7,261,627	-1,868,393	5,393,234
Component Totals:			
Army	2,521,727	-565,200	1,956,527
Navy	1,536,600	-546,600	990,000
Air Force	1,947,500	-567,400	1,380,100
Defense Agencies	803,600	-57,900	745,700
NATO Infrastructure	266,200	-40,000	226,200
Guard and Reserve	186,000	-91,293	94,707
Total Mil Construction/Family Housing	7,261,627	-1,868,393	5,393,234

State	Installation	Project	FY1993 Request	Senate Change	Senate Authorized
		MILITARY CONSTRUCTION CHANGES:			
		------------- ARMY ----------------			
CALIFORNIA	SIERRA ARMY DEPOT	AMMUNITION SURVEILLANCE FACILITY		2,300	2,300
PENNSYLVANIA	LETTERKENNY ARMY DEPOT	HAZARDOUS MATERIAL WAREHOUSE		5,400	5,400
TEXAS	RED RIVER ARMY DEPOT	HAZARDOUS MATERIAL WAREHOUSE		3,100	3,100
UTAH	TOOELE ARMY DEPOT	HAZARDOUS MATERIAL WAREHOUSE		9,000	9,000
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	REPAIR & MAINTENANCE	436,000	-436,000	0
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	160,000	-149,000	11,000

		TOTAL ARMY CHANGES		-565,200	
		------------- NAVY ----------------			
GEORGIA	ALBANY MARINE CORPS LOGISTICS BASE	HAZARDOUS MATERIALS WAREHOUSE MOD		2,900	2,900
SOUTH CAROLINA	CHARLESTON	HAZARDOUS WASTE STORAGE & TRANSFER FAC		600	600
VIRGINIA	NORFOLK NAVAL SUPPLY CENTER	COLD STORAGE WAREHOUSE		12,400	12,400
VIRGINIA	YORKTOWN NAVAL WEAPONS STATION	HAZARDOUS WASTE STORAGE		1,100	1,100
WASHINGTON	BREMERTON PUGET SOUND NAVAL SHIPYARD	ABRASIVE MATERIAL HANDLING FACILITY		1,400	1,400
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	REPAIR & MAINTENANCE	435,400	-435,400	0
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	142,000	-129,600	12,400

		TOTAL NAVY CHANGES		-546,600	

State	Installation	Project	FY1993 Request	Senate Change	Senate Authorized
		---------- AIR FORCE --------------			
CALIFORNIA	CASTLE AFB	UPGRADE SEWAGE TREATMENT PLANT	4,200	-4,200	0
MISSOURI	WHITEMAN AFB	B-2 ADD TO AND ALTER HYDRANT FUEL SYST	16,000	-16,000	0
MISSOURI	WHITEMAN AFB	B-2 ADD TO AND ALTER UTILITY SYSTEMS	5,500	-5,500	0
MISSOURI	WHITEMAN AFB	B-2 AIRCRAFT APRON AND TAXIWAY	18,200	-18,200	0
MISSOURI	WHITEMAN AFB	B-2 AIRCRAFT MAINT DOCKS/HYDRANT FUEL/	42,600	-42,600	0
MISSOURI	WHITEMAN AFB	B-2 IMPACT AID	550	-550	0
OKLAHOMA	TINKER AFB	UPGRADE INDUSTRIAL WASTEWATER TREATMEN		900	900
TEXAS	KELLY AFB	C-17 ADD/ALTER DEPOT AVIONICS FACILITY		1,300	1,300
TEXAS	KELLY AFB	C-17 ADD/ALTER INTEGRATION SUPPORT FACILITY		5,100	5,100
TEXAS	KELLY AFB	C-17 ADVANCE COMPOSITE REPAIR FACILITY		5,100	5,100
TEXAS	KELLY AFB	CHEMICAL WASTER STAGING FACILITY		750	750
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	REPAIR & MAINTENANCE	352,000	-352,000	0
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	153,000	-141,500	11,500

		TOTAL AIR FORCE CHANGES		-567,400	
		------- DEFENSE AGENCIES ----------			
NORTH CAROLINA	FORT BRAGG	HOSPITAL ADD/ALT PHASE I	20,000	-20,000	0
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	28,000	-20,500	7,500
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	REPAIR OF REAL PROPERTY	17,400	-17,400	0

		TOTAL DEFENSE AGENCIES CHANGES		-57,900	

State	Installation	Project	FY1993 Request	Senate Change	Senate Authorized
		----- ARMY NATIONAL GUARD --------			
GEORGIA	BARNESVILLE	ARMORY ACQUISITION		466	466
NEVADA	WASHOE COUNTY	ARMORY		6,470	6,470
NEW MEXICO	LAS CRUCES	AVIATION SUPPORT		1,014	1,014
NORTH DAKOTA	GRAND FORKS	VEHICLE STORAGE		3,800	3,800
NORTH DAKOTA	CAMP GRAFTON	HEAT PLANT ADDITION		1,826	1,826
NORTH DAKOTA	CAMP GRAFTON	ADAL CSMS		1,880	1,880
TEXAS	CAMP SWIFT	TRAINING SITE FACILITIES		5,138	5,138
TEXAS	VICTORIA	ADAL ARMORY		399	399
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	4,100	3,634	7,734
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	46,300	-41,200	5,100

		TOTAL ARMY GUARD CHANGES		-16,573	
		------ AIR NATIONAL GUARD --------			
ARIZONA	LIBBY AAF	RUNWAY RECONSTRUCTION		15,300	15,300
IDAHO	GOWEN FIELD	FIRE STATION		1,500	1,500
IDAHO	GOWEN FIELD	WEAPONS RELEASE SHOP		2,100	2,100
MASSACHUSETTS	BARNES AIRPORT	ADAL ENGINE SHOP		800	800
MASSACHUSETTS	BARNES AIRPORT	ADAL AVIONICS SHOP		1,250	1,250
MASSACHUSETTS	BARNES AIRPORT	ADAL SQUADRON OPERATIONS		900	900
MASSACHUSETTS	BARNES AIRPORT	ADAL CORROSION CONTROL		1,050	1,050
OKLAHOMA	TULSA AIRPORT	ADAL ENGINE SHOP		400	400
OKLAHOMA	TULSA AIRPORT	ADAL SQUAD OPERATIONS		1,350	1,350
OKLAHOMA	TULSA AIRPORT	OMS		430	430
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	27,900	-24,100	3,800

		TOTAL AIR GUARD CHANGES		980	

State	Installation	Project	FY1993 Request	Senate Change	Senate Authorized
		---------- ARMY RESERVE -----------			
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	PLANNING AND DESIGN	5,900	600	6,500
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	22,300	-21,800	500
		TOTAL ARMY RESERVE CHANGES		-21,200	
		--------- NAVY RESERVE -----------			
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	23,500	-22,500	1,000
		------- AIR FORCE RESERVE ---------			
WORLDWIDE UNSPECIFIED	UNSPECIFIED WORLDWIDE LOCATIONS	UNSPECIFIED MINOR CONSTRUCTION	34,200	-32,000	2,200
WORLDWIDE UNSPECIFIED	OSD MILCON	NATO INFRASTRUCTURE	266,200	-40,000	226,200

BASE CLOSURE AND REALIGNMENT ACCOUNTS

The committee recommends $674.6 million in fiscal year 1992 and $440.7 million in fiscal year 1993 for the Base Realignment and Closure Account, which supports the recommendations of the 1988 Base Realignment and Closure Commission. The fiscal year 1992 authorization includes an increase of $41.0 million to fully fund the environmental restoration expenses identified for that year for the bases to be closed or realigned.

The administration requested a $100.0 million authorization in both fiscal years 1992 and 1993 for the Base Closure Account 1990, which was established to fund the costs of closing and realigning bases under the provisions of the Defense Base Closure and Realignment Act of 1990. These funds were identified for advance planning and design of needed facilities, preliminary environmental restoration surveys, and community impact assistance. No specific construction projects were identified for the use of this fund.

The committee recommends an authorization of $297.0 million in fiscal year 1992 and $100.0 million in fiscal year 1993 for this account. The fiscal year 1992 authorization was increased by $197.0 million to fully fund the environmental restoration expenses identified for that year for the bases which have been recommended for closure by the 1991 Defense Base Closure and Realignment Commission. Since no accurate estimates of environmental restoration expenses were available for fiscal year 1993, the committee did not alter the administration's request.

Specific expenditures of funds from either account which are above the amount authorized by law for minor construction projects require notification of the Congressional defense committees. While not specifically limited to these projects, the administration's budget justification materials identified the following construction projects for the fiscal years indicated to be funded from the Base Realignment and Closure Account to effect actions recommended by the 1988 Commission:

FY 92 MILCON PROJECTS
BRAC I

State	Component	Location	Project Name	Project Cost ($000)
Arizona	Army	Fort Huachuca	Applied Inst Building II	14,200
		Fort Huachuca	Laundry Expansion	1,850
		Fort Huachuca	NCO Academy	1,400
		Fort Huachuca	Student Issue/Turn-in	690
		Yuma Proving Ground	Ammunition Handling Facility	2,800
		Yuma Proving Ground	Ammunition Storage Facility	13,600
		Yuma Proving Ground	Utility Services	12,000
			Total:	46,540
California	Air Force	Beale AFB	Add/Alt Hospital	7,400
		Beale AFB	Add/Child Development Center	900
		Beale AFB	Alter Support Facilities	2,000
		Beale AFB	Alter Survival Equipment Shop	660
		Beale AFB	In-Flight Kitchen	430
		Beale AFB	Officer's Open Mess	6,200
		Beale AFB	Recruiting Offices	1,100
		March AFB	AAFES Exchange Outlets	1,900
		March AFB	Add/Alt Base Roads	2,000
		March AFB	Add/Alt Hospital	9,700
		March AFB	AFRES Add/Alt Fuel Dock	4,500
		March AFB	AFRES Add/Alt Maintenance Shop	2,500
		March AFB	AFRES Add/Alt WSA	520
		March AFB	AFRES Aerial Port Training Facility	2,200
		March AFB	AFRES Avionics Shop	1,700
		March AFB	AFRES Composite Training Facility	2,600
		March AFB	AFRES Med Evac Tng Facility	2,400
		March AFB	AFRES Medical Training Facility	1,300
		March AFB	Alter Base Support Facilities	2,300
		March AFB	PMEL Facility	1,450
		March AFB	Traffic Management Office	1,600
		Mather AFB	AFRES Acft Maintenance Shops	1,800
		Mather AFB	AFRES Acft Refueling Facilities	775
		Mather AFB	AFRES Alert Crew Readiness	825
		Mather AFB	AFRES BCE-Supply Complex	1,350
		Mather AFB	AFRES Isolate Utility Services	800
		Mather AFB	AFRES Operational Training	1,300
		Mather AFB	AFRES Perimiter Security	650
		Travis AFB	Add/Alt Acft Tire Shop	1,100
		Travis AFB	Add/Alt Base Supply Warehouse	1,500
		Travis AFB	Alter Avionics Shop	900
		Travis AFB	NCO Academy	9,700
		Travis AFB	Triple Seat Process Facility	600
	Army	Hamilton Army Airfield	Renovate Army Reserve Center	6,300
		Oakland Army Base	USAR Center Building	7,900
	Navy	Naval Station San Diego	Electrical Distribution, Piers 6/8	12,600
			Total:	103,460

FY 92 MILCON PROJECTS
BRAC I

State	Component	Location	Project Name	Project Cost ($000)
Colorado	Air Force	Lowry AFB	ADAL Trans Trng Complex	13,800
		Lowry AFB	Renovate Dining Facility	1,000
	Army	Fort Carson	Information Systems Facility	3,250
			Total:	18,050
Illinois	Army	Fort Sheridan	Administration Building	1,500
		Fort Sheridan	Boilers	160
		Fort Sheridan	USAR Assembly Hall	850
		Fort Sheridan	Utility Services	3,400
			Total:	5,910
Iowa	Army	Fort Des Moines	Army Reserve Center Building	5,000
			Total:	5,000
Kentucky	Army	Bluegrass Ammunition Depot	Information Management Facility	590
		Bluegrass Ammunition Depot	S&S Property Facility	2,000
			Total:	2,590
New Jersey	Army	Picatinny Arsenal	Metallurgy Laboratory	5,900
			Total:	5,900
New Mexico	Air Force	Cannon AFB	AAFES Military Clothing Sales	210
		Cannon AFB	Add to Base Gym	410
		Cannon AFB	Add to Combat Ops Facility	490
		Cannon AFB	Add to Youth Center	490
		Cannon AFB	Add/Alt FTD	620
		Cannon AFB	BCE Shops	1,250
		Cannon AFB	Dining Hall	2,400
		Kirtland AFB	AFISC Headquarters	14,000
			Total:	19,870
North Carolina	Army	Fort Bragg	Hospital Replacement	15,000
			Total:	15,000
Ohio	Air Force	Wright-Patterson AFB	Recruiting Offices	650
			Total:	650
Texas	Air Force	Sheppard AFB	AGE Trng Facility	7,800
		Sheppard AFB	Dining Facility	4,600
		Sheppard AFB	Jets/Metals Tech Trng Facility	21,000
		Sheppard AFB	Troop Issue Warehouse	750

FY 92 MILCON PROJECTS
BRAC I

State	Component	Location	Project Name	Project Cost ($000)
Texas	Army	Fort Sam Houston	Administration Facility	1,150
			Total:	35,300
Utah	Army	Fort Douglas	Administration Facility	910
		Fort Douglas	Vehicle Parking	310
		Tooele Ammunition Depot	Administration Facility	620
			Total:	1,840
Virginia	Army	Fort Belvoir	Access Roads	3,000
		Fort Belvoir	Administration Facility	8,300
		Fort Belvoir	BRAC Roads	16,500
		Fort Belvoir	Industrial Park	25,000
		Fort Belvoir	Materials Research Facility	17,500
		Fort Myer	Logistics Complex	10,200
			Total:	80,500
Washington	Army	Fort Lewis	Administration Building	460
			Total:	460
Wisconsin	Army	Fort McCoy	Administration Facility	4,000
			Total:	4,000
			Total:	345,070

FY 93 MILCON PROJECTS
BRAC I

State	Component	Location	Project Name	Project Cost ($000)
Alabama	Army	Redstone Arsenal	Primary Radiations Complex	4,650
			Total:	4,650
Arizona	Army	Fort Huachucua	Hospital Renovation	4,000
		Yuma Proving Ground	Ammunition Preparation Facs	16,000
		Yuma Proving Ground	Ammunition Test Facility	970
		Yuma Proving Ground	Artillery and Mortar Range	8,500
		Yuma Proving Ground	Communications Facility	1,300
		Yuma Proving Ground	Direct Fire Range	4,300
		Yuma Proving Ground	Support Maintenance Fac	14,000
		Yuma Proving Ground	Technical Operations Center	7,300
		Yuma Proving Ground	Vibration Test Facility	1,450
			Total:	57,820
California	Air Force	Beale AFB	Add Phys Fitness Ctr	1,900
		McClellan AFB	Add/Alter Hospital	34,000
		Norton AFB	Alter BMO Cantonment Area	9,700
	Navy	San Diego	Pier 3 Upgrade	12,360
			Total:	57,960
Colorado	Army	Fort Carson	Admin Building	130
		Fort Carson	Aviation Unit Maint Hgr	3,200
			Total:	3,330
District of Columbia	Army	Walter Reed AMC	Hosp Alt/Clinic Add	11,000
			Total:	11,000
Louisianna	Army	Gulf Outport	Terminal Transfer Fac	530
			Total:	530
Maryland	Army	Fort Detrick	Medical Research Lab	40,000
			Total:	40,000
Massachusetts	Army	Fort Devens	Administration Facility	9,800
		Fort Devens	Administration Facility	24,000
			Total:	33,800
New York	Navy	Staten Island	Storage Facility	1,600
			Total:	1,600

FY 93 MILCON PROJECTS
BRAC I

State	Component	Location	Project Name	Project Cost ($000)
North Carolina	Army	Fort Bragg	Hospital Replacement	11,000
			Total:	11,000
Pennsylvania	Army	Letterkenny Ammunition Depot	Log Spt Admin Bldg	16,000
			Total:	16,000
Texas	Air Force	Sheppard AFB	Add/Alter Hospital	1,950
	Army	Fort Sam Houston	Vet Lab Add/Alt	1,800
	Navy	Ingleside	Berthing Pier Extension	14,500
			Total:	18,250
Virginia	Army	Fort Belvoir	Headquarters Complex III	45,000
			Total:	45,000
Washington	Army	Fort Lewis	Hospital Addition	1,050
			Total:	1,050
			Total:	301,990

BASE CLOSURE AND REALIGNMENT CANDIDATES

The military construction requests for fiscal years 1992 and 1993 were developed in the face of unusual turbulence. The Secretary of Defense has published a long-term force structure plan under the provisions of title XXIX of the National Defense Authorization Act for Fiscal Year 1991 which outlines significant changes in the forces of each military Service. Based upon substantial force reductions both in the United States and overseas, the Department has embarked upon an ambitious program of installation closures and realignments. Over 230 overseas installations and sites have been announced for closure or partial drawdown since January 1990, and others are expected to be announced in the coming months.

On April 12, 1991, the Secretary of Defense announced his recommendation to close 43 major installations and to realign an additional 28 bases within the United States. On July 1, the Commission reported its recommendations to the President. That report recommended the closure of 34 bases and the realignment of 48 others. The President subsequently approved the Commission's report and forwarded it to Congress. Congress has a period extending into early fall to consider a joint resolution of disapproval. Should such a resolution fail to be enacted, the closure and realignment actions would be implemented.

In the face of this incomplete process, the committee defers any military construction investment at installations recommended for closure or realignment unless it supports time sensitive requirements which will need to be met regardless of the final outcome of the closure and realignment process. A great number of previously authorized projects have already been deferred by the Department pending the determination of a long-term basing plan for each military Service. These deferrals have led to the potential expiration of authorization of many projects.

The committee plans to address the extension of authorization of these deferred projects during the Senate-House conference on this bill when the final list of 1991 base closures and realignments becomes clearer. Because of the turbulence in the construction program and the difficulty in timely project execution, the committee increases the period of authorization for construction projects authorized for appropriation in this bill from two to three years.

While this additional time will give the Department more flexibility in executing construction projects, it remains the committee's position that, absent unforeseen circumstances, construction should commence in the year in which it is authorized. For this reason, the committee reiterates its requirement that projects requested for authorization by the administration be at least 35 percent designed.

INFRASTRUCTURE INVESTMENT

The committee is aware that as the age of Department of Defense installations increases and the rising utility requirements of modern weapons systems are accommodated, most installations face increasing utility demands and antiquated delivery systems. These problems are exacerbated by increasingly stringent environmental standards which affect the production, storage, treatment, and disposal of hazardous and non-hazardous wastes.

While the Defense Department has increased its emphasis on environmental compliance and restoration in recent years, the committee remains concerned that the utility infrastructures of many installations require substantial investment if they are to meet mission needs into the next century. In order to make use of state of the art technologies, the Department is encouraged to explore and prototype test such technologies as activated carbon wastewater treatment so that they can be considered as design options in modernizing installation utilities systems.

As a part of the fiscal year 1993 amended budget submission, the committee directs each of the Military Departments and those Defense Agencies which operate installations to develop a five-year plan for infrastructure modernization which addresses the relationship of this fiscally constrained plan to their overall utility needs, and particularly highlights any emerging technologies which they anticipate employing in utility projects.

DAVIS BACON LEGISLATIVE CONTINGENCY

In its legislative contingency, the administration assumed a $150.0 million savings in construction expenses resulting from the adoption of a proposed amendment to the Davis Bacon Act which influences wage rates for federal construction projects.

The administration has proposed an amendment of the Davis Bacon Act for the past several years. It has been singularly unsuccessful in gaining Congressional support for these proposals. The committee has long taken the position that the amendment of the

Davis Bacon Act should be addressed by the committees with jurisdiction over this statute. The committee knows of no new information which would alter this view or changes to the prospects for passage of the administration's proposal.

Since the administration persists in taking credit for savings from this proposal despite very poor prospects for its enactment, the committee applies a proportionate, unallocated reduction to the authorizations for appropriations of each of the military Services and Defense Agencies.

TITLE XXI—ARMY

ADMINISTRATIVE FACILITY, REDSTONE ARSENAL, ALABAMA

The committee approves the administration's request of $67.4 million for an administrative facility at Redstone Arsenal, Alabama. The committee recognizes that the size of the facility requested, 543,000 square feet, falls substantially short of the installation's requirement for approximately 900,000 square feet of administrative space. Therefore, the committee directs the Department of the Army, in developing specifications and bid packages for this project, to encourage respondents to achieve the greatest possible capacity within the funding level which is authorized and appropriated.

ELEMENTARY SCHOOL, FORT WAINWRIGHT, ALASKA

The committee recommends a provision (sec. 2109) that would clarify the intent of Congress in authorizing $8.3 million in the National Defense Authorization Act for Fiscal Year 1991 to construct an elementary school at Fort Wainwright, Alaska. The provision would authorize the Secretary of the Army to make a direct grant to the Fairbanks North Star Borough School District, Fairbanks, Alaska, for the construction of this school in lieu of the Army constructing the facility and subsequently transferring title to the school district for operations.

MILITARY FAMILY HOUSING, OAHU, HAWAII

The committee notes that one of the most persistent financial and morale problems facing military families is the shortage and cost of housing on Oahu, Hawaii. Military personnel assigned to the many important defense activities on Oahu face a 12- to 24-month wait for government-controlled housing. In the interim, they must compete for civilian housing in a market which has a deficit estimated to exceed 40,000 units by 1995.

This chronic shortage of housing on the island fuels a continued escalation in rents, forcing families of junior enlisted personnel who cannot be accommodated in government-controlled housing to expend close to half of their household income on shelter. The extraordinary cost of housing has caused many such families to seek public assistance through programs such as food stamps. This situation leads to increased family stress, low morale, and an associated loss in mission effectiveness.

In light of this problem, the committee recommends support of the administration's request for the construction of 140 additional family housing units at an authorization of $16.5 million. In addition to this request, the committee directs the solicitation of construction of 868 units of housing on Oahu under the section 802 guaranteed rental program.

The committee believes that the Department of Defense has not placed sufficient priority on addressing the housing and associated quality of life issues facing personnel stationed on Oahu. It therefore directs the Department, as a matter of priority, to program substantial increments of additional family housing on Oahu under military construction or third party financing authorities, and to develop a plan, in cooperation with the Committees on Armed Services and Appropriations of the Senate and the House of Representatives, to resolve these longstanding problems.

AUTHORIZATION FOR PLANNING AND DESIGN, ARMY

The committee recommends that the authorization of appropriation for planning and design of facilities for the Department of the Army be increased to accommodate projects added in this bill. Of the sum authorized for this purpose, $1.5 million is designated to design an administrative and support complex at Fort Polk, Louisiana. The committee expects that the timely expenditure of funds for this purpose will permit the Army to include the construction of this facility in its fiscal year 1993 amended budget request.

The committee directs the Department of the Army to use $5.0 million of the additional authorization for appropriation for this account to complete design of an Army Institute of Research at the Walter Reed Army Medical Center, Washington, D.C.

TITLE XXII—NAVY

TERMINATION OF AUTHORITY TO CARRY OUT CERTAIN PROJECTS

The committee recommends a provision (sec. 2208) that would rescind the authorization for appropriation contained in the National Defense Authorization Act for Fiscal Year 1991 for $45.5 million for projects at the Silverdale Strategic Weapons Facility Pacific, Washington, which were to be constructed to support the deployment of the D-5 missile system. Inasmuch as the Department of the Navy has indefinitely postponed this weapon deployment at that location, the committee recommends terminating authorization for all of these projects except $11.1 million for utility improvements which will be needed in any case.

SPECIFICATION OF MILITARY CONSTRUCTION PROJECT, MARINE CORPSSUPPORT ACTIVITY, KANSAS CITY, MISSOURI

The committee recommends a provision (sec. 2209) that would modify the authorization for appropriation for the Marine Corps Support Activity, Kansas City, Missouri, that was included in the National Defense Authorization Act for Fiscal Years 1990 and 1991. The project was to be phase I of a multi-year initiative to relocate several Marine Corps activities from administrative space leased from the General Services Administration into new facilities constructed with military construction funds on leased property at the civilian Richards-Gebaur Airport in Kansas City, Missouri.

Due to a number of changes in Marine Corps plans, this provision would direct that the project authorized for appropriation as phase I be designed and constructed to meet only the needs of the Marine Corps Reserve in the Kansas City area.

AUTHORIZATION FOR PLANNING AND DESIGN, NAVY

The committee recommends that the authorization of appropriation for planning and design of facilities for the Department of the Navy be increased to accommodate projects added in this bill. Of the sum authorized for this purpose, $175,000 is designated to design modifications to an existing hazardous materiel storage warehouse at Marine Corps Logistics Base, Albany, Georgia. The committee expects that timely expenditure of funds for this purpose will permit the Marine Corps to include the construction of these modifications in its fiscal year 1993 amended budget request.

An additional $5.0 million has been added and designated as the Navy's contribution to the design of a highway bridge near the new Navy homeport at Pascagoula, Mississippi. The committee directs the Secretary of the Navy, as part of his fiscal year 1993 amended budget request, to include funding for the Navy's portion of this important project, along with the justification for the formula of cost-sharing with the state of Mississippi.

Finally, the committee directs that from the funds available to the Navy from this account, the Department initiate design of a potable water system needed at Lakehurst Naval Air Engineering Center. The design of this system shall take into account any additional water requirements associated with the mission realignments to that installation recommended to the President on July 1, 1991, by the Defense Base Closure and Realignment Commission.

MARINE CORPS LOGISTICS ACTIVITY, BLOUNT ISLAND, FLORIDA

The committee is aware that the Marine Corps, several years ago, established a logistics activity on Blount Island, Florida, to provide support for its system of afloat logistics, the Maritime Prepositioning Ships (MPS). This activity offloads these vessels periodically so that the ships themselves can undergo maintenance and recertification, and so that maintenance and technical upgrades can be made to the cargo of these vessels. The MPS vessels carry a full range of materiel, including tracked and wheeled vehicles, ammunition, fuel, and water, and other associated equipment and spare parts for the full array of Marine Corps ground combat forces.

The proximity of Blount Island on the southeast Atlantic coast to the Marine Corps Logistics Base, Albany, Georgia, makes Blount Island or a similar location particularly attractive for expedited and economic depot level support.

From its inception, the Blount Island facility has grown substantially. From originally supporting only a portion of the MPS system, the complex now supports the entire fleet. During Operation Desert Shield/Desert Storm, it also served as an important port of embarkation for Army materiel and Marine Corps follow-on sustainment.

In light of the important lessons gained during this operation concerning the utility of afloat logistics, the committee is aware that the Department of Defense is evaluating whether the MPS system or some variant might be adopted to support other forces. These developments, plus the need over the next several years to refurbish and reconstitute the current Marine Corps MPS stock, suggest that the Department of Defense ought to carefully evaluate the future of Blount Island or a similarly located facility. In addition to potential expansion in its mission, the committee believes that the Department ought to evaluate whether it would be in the best interest of the Department to purchase, rather than lease, this or a similar complex.

The committee directs the Secretary of Defense to address these and related issues no later than February 15, 1992, in a report to the Committees on Armed Services of the Senate and the House of Representatives.

HOUSING, NAVAL AIR STATION, FALLON, NEVADA

The committee is aware of the austere housing conditions for unaccompanied personnel and military families stationed at Naval Air Station (NAS) Fallon, Nevada. The National Defense Authorization Act for Fiscal Year 1991 authorized $10.5 million to construct 80 units of family housing on the installation. Additional bachelor and family housing deficits have been identified, but have not been translated into designed construction projects.

In order to meet this critical need at this isolated base, the committee directs the Secretary of the Navy to validate the unaccompanied and family housing needs of this installation, bearing in mind the mission loading programmed there through fiscal year 1997. A reporting of these findings shall accompany the amended budget request for fiscal year 1993. The committee expects the Department to use some of the planning and design funds authorized for appropriation in this bill to initiate design of a family housing project so that it can be included in the fiscal year 1993 amended budget request. A similar allocation of design funds is directed in fiscal year 1993 so that an unaccompanied housing project can be programmed for inclusion in the 1994 budget request.

TRESTLE REPLACEMENT, EARLE NAVAL WEAPONS STATION, NEW JERSEY

The administration requested, under the Defense Business Operations Fund (DBOF), the authorization of $36.5 million in fiscal year 1992, and $25.7 million in fiscal year 1993 for the replacement of a trestle at Naval Weapons Station Earle, New Jersey. These requests are the last two phases of a three-phase plan to replace a three mile long structure which connects onshore munitions storage and handling facilities with offshore piers from which naval vessels receive and offload munitions.

The National Defense Authorization Act for Fiscal Year 1991 authorized $85.0 million for this initiative, and authorized for appropriation $20.1 million for the first phase of construction. Due to its age and deteriorated condition, the trestle is in danger of structurally failing, thus rendering this critical munitions loadout facility virtually inoperative.

As part of the committee's recommendation not to use the DBOF approach for facility capitalization, it recommends the transfer of these authorizations into the military construction account for fiscal years 1992 and 1993. In authorizing for appropriation the requested sums, the committee recognizes the importance of the mission of the Earle Naval Weapons Station and the investment of approximately $123.0 million over the last five years to modernize this complex to support the Navy's new classes of logistics vessels and improve the quality of life for personnel stationed there. Of equal importance to the committee is the commitment of NATO to fund up to 50 percent of the cost of this facility replacement, which is beyond the $85.0 million authorization for U.S. military construction.

NAVAL SUPPORT ACTIVITY, NAPLES, ITALY

For the past several years, the Department of the Navy has been proceeding with a long-term program to improve its operational and support facilities in Naples, Italy. While disapproving a proposal to construct a completely new operating site at Capua, Congress has authorized the construction of a new command and control complex at Capodichino Airport, a project which is currently under construction. In its request for fiscal year 1992, the Navy has requested $11.3 million for two construction projects which will continue to modernize this complex.

Remaining are longstanding concerns about the adequacy and security of the Navy's support facilities at other sites in and around the city which provide medical, housing, educational, logistic, and morale and recreation support for the substantial Navy presence in the region, as well as for the United States military element assigned to NATO activities in the region.

In light of planned reductions in the size of the U.S. presence in Europe, the potential restructuring or re-sizing of NATO activities, and overall budget constraints, the committee believes that further plans to modernize support activities in the Naples area should be based upon a long-term plan which takes these and other relevant factors into account. Consequently, the committee directs the Secretary of Defense to submit, no later than February 1, 1992, a comprehensive plan addressing the long-term U.S. military presence in the Naples area and the facility requirements which such a presence generates. Beyond the validation of requirements, the plan shall address a number of options to meet these requirements, with associated cost estimates developed according to guidelines of the Office of Management and Budget.

The committee expects that any plans for new leased or government constructed facilities for the Naval Support Activity (NSA) will include options to modify or expand the existing NSA complex at Agnano in view of its close proximity to NATO and Navy activities in the area.

TITLE XXIII—AIR FORCE

TERMINATION OF AUTHORITY TO CARRY OUT CERTAIN PROJECTS

The committee recommends a provision (sec. 2309) that would rescind the authorization for appropriation contained in the National Defense Authorization Act for Fiscal Year 1991 for $11.0 million at various locations in the state of Alaska. These projects were to support the deployment of an over-the-horizon, backscatter (OTH-B) radar system in that state. Inasmuch as the deployment of that system at that location has been canceled, the committee recommends terminating authorization for this construction.

CONSTRUCTION SUPPORTING THE B-2 AIRCRAFT BASING

The committee recommends a provision (sec. 2310) that would prohibit the Secretary of the Air Force from entering into any contracts for the design or construction of facilities related to the basing of the B-2 aircraft until 180 days after the Secretary of Defense submits to the Committees on Armed Services of the Senate and the House of Representatives a report containing the following:

1. All basing options for the B-2 weapons system;
2. The sites planned for or selected for locating these aircraft;
3. A cost comparison of the basing of the B-2 at Whiteman Air Force Base and any follow-on bases compared to all existing Strategic Air Command bases, including those scheduled for closure.

The administration requested $49.5 million for fourteen construction projects at Whiteman Air Force Base, Missouri, in support of the basing of the B-2 aircraft. The request includes projects for munitions support, maintenance, warehouse space, utilities, and operational requirements. It also includes defense access roads, impact assistance to the community, and a physical fitness center. For fiscal year 1993, the administration requested an additional $82.9 million for five projects. These requests are preceded by prior year authorizations beginning in fiscal year 1987 totaling $272.9 million for the basing of this new aircraft.

In its report (S. Rept. 101-384) accompanying the National Defense Authorization Act for Fiscal Year 1991, the committee voiced a number of concerns regarding the basing of the B-2 weapons system, including the rationale for selecting Whiteman Air Force Base as the initial operational and training location, the need for providing shelters for each aircraft, the potential effects on the community of this new mission, and the location, timing, and cost of basing the remaining programmed force.

In light of these concerns, the committee requested several reports which would establish a firm baseline for the funding of this important program:

1. The committee directed the Air Force to provide within its budget request for fiscal years 1992 and 1993, a long-term population projection for Whiteman Air Force Base which specifically addresses the future of the Minuteman missile mission which is currently located on the base.
2. It also directed the Service to provide a revised construction schedule, by location for each B-2 base, identifying all bases pro-

grammed to support this weapons system together with the operational and economic rationale for the selection of these bases.

3. It directed a development strategy for the provision of shelters for a portion of the B-2 force at Whiteman AFB, and a multi-year evaluation of the effect of operating the aircraft without shelters.

4. It directed that complete force basing data be provided for each new weapons system, including the B-2, which the Service plans to field when the first increment of construction is requested.

In the conference report (H. Rept. 101-923) accompanying the National Defense Authorization Act for Fiscal Year 1991, the conferees reiterated the views of this committee on these issues and directed that full basing plans be provided for each new weapons system.

Since that time, the committee has received a report from the Department of the Air Force which provides a direct employment projection for the base from fiscal year 1992 through fiscal year 1997. These projections take into account the development of a 30-aircraft B-2 force at Whiteman AFB, the relocation of an Air Force Reserve A-10 tactical fighter unit to the base, and the retirement of the Minuteman ICBM mission by the end of fiscal year 1997.

Based upon these mission changes, it appears that the base will experience a temporary increase in employment in the fiscal year 1993 through fiscal year 1996 period, but will return to approximately 1992 employment levels by 1997. Because of the transient nature of this employment increase, the committee does not foresee a community impact in fiscal year 1992 to justify the Air Force's request for $1.0 million for this purpose. Should the community experience an unfair or excessive burden during the fiscal year 1993-1996 period, the committee would welcome a specific impact assistance request in the fiscal year 1993 amended budget request.

The committee has not received the requested basing plan and military construction projections for the remainder of the B-2 force or other new systems such as the C-17 aircraft. Therefore, notwithstanding actions discussed elsewhere in this report regarding the development and procurement of the B-2, the committee recommends deferral of all new construction in support of the B-2 weapons system.

REAL ESTATE ACQUISITION, VANDENBERG AIR FORCE BASE, CALIFORNIA

The committee defers the proposed acquisition of land or easements on approximately 19,000 acres of privately owned land east and southeast of Vandenberg Air Force Base, California. The purpose of this proposal would be to secure development rights to this property and avoid development which would be incompatible with the safe launch of satellites from the base. The administration requested $80.0 million for this purpose.

The National Defense Authorization Act for Fiscal Year 1991 authorized $10.0 million to secure an option for purchase of these interests. However, due to the complex appraisal process, this authority has not been exercised, and the appraisal is not expected until the end of fiscal year 1991. Inasmuch as the Air Force has no basis upon which to determine the estimated total cost of this initiative, the committee believes that authorizing the requested $80.0 million for the acquisition of these interests in fiscal year 1992 is premature.

MACDILL AIR FORCE BASE, FLORIDA REALIGNMENT

The Defense Base Closure and Realignment Commission and the President recommended that MacDill Air Force Base, Florida, be realigned. The commission's report to the President noted that the Department of Defense did not recommend total closure of the installation because of the high costs associated with relocating headquarters facilities for two unified commands, the U.S. Central Command and the U.S. Special Operations Command.

The committee notes that the rationale for removing the F-16 training wing and its associated flying mission from MacDill AFB was based upon force structure changes and, with regard to the base itself, airspace encroachment and a lack of training areas for tactical aircraft. The committee, however, is concerned that the deployment needs of the two remaining unified commands may not be met through total reliance on currently available commercial airfields in the area.

Therefore, the committee directs the Secretary of Defense to take such steps as necessary to meet the timely deployment requirements of the unified commands located at MacDill AFB and to ensure that any reuse plans for the base's runway complex are consistent with meeting these requirements. However, the committee underscores that no action by the Department should be taken in conflict with the recommendations of the Defense Base Closure and Realignment Commission or the decisions of the President regarding the realignment of MacDill AFB.

TITLE XXIV—DEFENSE AGENCIES

AUTHORIZATION FOR UNAUTHORIZED FISCAL YEAR 1991 APPROPRIATIONS FOR SPECIAL OPERATIONS COMMAND PROJECTS

The committee recommends a provision (sec. 2406) that would authorize the construction of two projects for the U.S. Special Operations Command which were appropriated in the Military Construction Appropriations Act for Fiscal Year 1991, but which have not as yet been authorized. One project is an operations complex at Fort Bragg, North Carolina, authorized for $8.1 million. The other project is a land acquisition authorized for $2.0 million at a classified location within the United States.

SPECIAL OPERATIONS BATTALION HEADQUARTERS, FORT BRAGG, NORTH CAROLINA

The committee recommends a provision (sec. 2407) that would restrict the use of a new battalion headquarters complex at Fort Bragg, North Carolina, which is authorized in this bill to be used exclusively for that purpose. Should the Department of the Army or the U.S. Special Operations Command wish to alter the use of this facility, the committee would consider a request, along with appropriate justification, to amend this legislation.

FORT BENJAMIN HARRISON, INDIANA

The Department of the Army requested an authorization of $125.0 million for a six-year renovation of Building 1 at Fort Benjamin Harrison, Indiana. The project would upgrade a 40-year old facility, remove hazardous asbestos, and provide 1.5 million square feet of modern administrative space. The authorization of appropriation for the first phase of this project, $25.0 million, is requested in fiscal year 1992. No funds are requested for fiscal year 1993 for this purpose.

The principal purpose of renovating this facility would be to provide modern facilities for the Defense Finance and Accounting Service (DFAS), Indianapolis Center, which currently occupies approximately 60 percent of the building. According to a proposal by the Secretary of Defense on April 12, 1991, this facility would be retained by the Department even though its host installation, Fort Benjamin Harrison, was recommended for closure.

On July 1, the Defense Base Closure and Realignment Commission recommended to the President that Fort Benjamin Harrison be closed. Contrary to a recommendation of the Secretary of Defense that Building 1 be retained for use by the Defense Finance and Accounting Service, the Commission recommended that this facility also be closed. However, the Commission further recommended that the Defense Finance and Accounting Service, Indianapolis Center be retained.

Inasmuch as the base closure process has not been completed, the committee defers the Department's request to begin the renovation of Building 1.

Notwithstanding the ongoing base closure process, the committee believes that DFAS should complete its analysis of potential consolidations within the accounting and finance functions. Based upon the outcome of these studies, DFAS should develop a basing plan which is functionally suitable and economically feasible. In examining basing alternatives, the committee directs DFAS to take into account the recommendation of the Base Closure Commission to retain DFAS, Indianapolis Center, as well as the excess or underutilized administrative space at military installations which will be retained. The committee looks forward to receiving this report and directs that it be provided to the Committees on Armed Services of the Senate and the House of Representatives no later than February 15, 1992.

The committee directs the Secretary of Defense to expeditiously begin the planning and design of any new facilities required by the DFAS long-term plan using planning and design funds authorized for appropriation for fiscal year 1992.

WOMACK ARMY COMMUNITY HOSPITAL, FORT BRAGG, NORTH CAROLINA

The administration requested an authorization for $165.0 million to replace Womack Army Community Hospital at Fort Bragg, North Carolina. This project was to be funded over a number of years, with the fiscal year 1992 increment of $26.0 million coming from the Base Realignment and Closure Account. Contrary to longstanding Congressional policy that construction projects submitted in a budget request be at least 35 percent designed, the Department included this project without any design underway to justify its cost estimate. Within a matter of weeks, the cost of this complex rose to $250.0 million as the design effort proceeded to 10 percent of completion.

The committee is extremely disappointed that the Department's planning process is so uncoordinated that it would request authorization for a project of this magnitude with so little design accomplished. The previous, unsatisfactory experience in continually reestimating the cost of the replacement of the Brooke Army Medical Center should have suggested that projects of this complexity and scale must be at least 35 percent designed in order to provide the Department and the Congress with reasonably reliable cost data. The 51 percent increase in the Fort Bragg project cost within a few weeks only strengthens the case for careful and complete planning and design prior to budget submission. At this point, there is little basis to believe that the Department's revised cost estimate is accurate.

Despite the cost growth, the committee supports the need to replace the antiquated facilities constituting Womack Army Community Hospital, which serves the largest active duty patient population in the Army. However, the committee believes that it is prudent to defer authorization until fiscal year 1993 when the design of this project is mature enough to provide a high level of confidence in the cost estimate.

Further, the committee is concerned that the Department of Defense has failed to conduct a thorough analysis of its long-term medical training requirements based upon its fiscal year 1997 military end strength. The committee doubts whether Fort Bragg represents an optimal location for expanded professional medical training. Absent a thorough analysis of the Department's long-term training requirements and alternative basing options, the committee sees no evidence that the teaching component of the new hospital can be justified.

Based upon these concerns, the committee defers consideration of this important project for one year. It encourages the Department to use this time to carefully design the replacement facility and to reevaluate its long-term medical training needs and basing options. The committee looks forward to considering this project with the fiscal year 1993 amended budget request, and directs that any such military construction request be accompanied by a thorough analysis of training requirements and siting options.

TITLE XXV—NORTH ATLANTIC TREATY ORGANIZATION INFRASTRUCTURE

NATO INFRASTRUCTURE

The committee recommends provisions (secs. 2502 and 2522) that would, respectively, authorize for appropriation the U.S. contributions to the NATO Infrastructure Program for fiscal years 1992 and 1993. The administration requests of $358.8 million and $266.2 million for these years represent only a modest reduction from the $420.0 million requested in fiscal year 1991, and a substantial increase to the $192.7 million authorized for appropriation that year.

Section 2501 of the National Defense Authorization Act for Fiscal Year 1991 expressed the sense of the Congress that the NATO Infrastructure Program should be used primarily for:

a. verifying or implementing the terms of conventional arms control agreements;

b. recoupment owed by the United States for projects completed prior to enactment of that act; and

c. completion of any construction project begun prior to October 1, 1990.

Since the enactment of that act, the North Atlantic Council and the Defense Planning Committee reaffirmed the new directions of the alliance which had been set forth in the London Declaration. Since then, NATO planners have been developing a new military strategic concept and, in a parallel effort, the NATO Secretary General called for a fundamental review of the NATO Infrastructure Program. Initially, this review has focused on broad policy issues which do not depend upon the ongoing strategy studies. The results of this review are expected in the fall of 1991. Later, as the details of the military strategy become clearer, specific changes to the scope and content of the Infrastructure Program are anticipated.

The committee supports the general direction that NATO is taking to reshape the Infrastructure Program. It looks forward to at least semi-annual updates on progress in this area. It is, however, concerned that NATO is considering expanding the scope of the Program into areas not traditionally funded through this means. The committee reiterates last year's sense of the Congress that the NATO Infrastructure Program ought to be reduced in scope, not expanded. Consequently, the committee recommends modest reductions in the administration's requests for this program in fiscal year 1992 and fiscal year 1993.

Once the alliance reviews of its military strategy and Infrastructure Program have been completed, the committee encourages the administration to reconsider the fiscal year 1993 funding requirements for this program in light of any altered planning factors.

TITLE XXVI—GUARD AND RESERVE FORCES FACILITIES

HEADQUARTERS FACILITY FOR ARMY RESERVE COMMAND

The United States Army Reserve Command was established under the authority of section 903 of the National Defense Authorization Act for Fiscal Year 1991. In implementing this authority, the Chief of the Army Reserve has established the Command's headquarters in temporary accommodations at Fort McPherson, Georgia, collocated with the U.S. Forces Command.

In order to provide this command a permanent, functionally located headquarters facility in a timely manner, the committee increases the authorization for appropriation of the Army Reserve for planning and design in both fiscal years 1992 and 1993. Of those sums, $1.0 million would be exclusively authorized in fiscal year 1992, and $600,000 would be exclusively authorized in fiscal year 1993 for the design of a headquarters complex on Fort McPherson, Georgia, for the Army Reserve Command. The committee expects the Army Reserve to proceed expeditiously with this design effort so that this project will be ready for construction in fiscal year 1994.

LIBBY ARMY AIRFIELD, FORT HUACHUCA, ARIZONA

Libby Army Airfield is a multiple use airport which serves the mobility needs of Fort Huachuca, Arizona, Air Force training requirements generated from other locations in the region, and civilian aviation needs through a joint use agreement. In the early 1980s, the runway was substantially upgraded in order to support Air Force fighter training from the Tucson area. Unfortunately, due to an apparent design deficiency, the runway is rapidly deteriorating and requires substantial reconstruction. The committee understands that the Department of Defense is pursuing reimbursement of damages from potentially liable parties.

In its report (S. Rept. 101-384) accompanying the National Defense Authorization Bill for Fiscal Year 1991, the committee directed that some of the additional authorization for appropriations provided to the Air National Guard be used to design this reconstruction. This design effort is underway; however, it is not far enough along to prudently proceed with the runway reconstruction in fiscal year 1992.

In light of the dependence by the Army, Air Force, Air National Guard, and civilian community upon Libby Army Airfield, the committee recommends $1.2 million in fiscal year 1992 to upgrade the lighting and visual landing aids of the cross runway which will be the only operational runway during the period of reconstruction. This project will permit reconstruction of the primary runway to commence early in fiscal year 1993 without having to await completion of the companion lighting project. To that end, the committee recommends $15.3 million in fiscal year 1993 for the reconstruction of the main runway at Libby Army Airfield.

HAWK TRAINING SITE, RIO PUERCO, NEW MEXICO

The National Defense Authorization Act for Fiscal Year 1991 authorized three Army National Guard projects supporting the fielding of a Hawk training mission at Rio Puerco, New Mexico. Out of this overall authorization and the companion appropriation, the committee directs that $1.6 million be allocated to constructing the final portion of this mission change, a Hawk training facility.

TITLE XXVIII—GENERAL PROVISIONS

PART A—DEFENSE BASE CLOSURE AND REALIGNMENT

DEFENSE BASE CLOSURE AMENDMENTS

The Defense Base Closure and Realignment Act (title XXIX of the National Defense Authorization Act for Fiscal Year 1991) established a procedure to govern the complex and difficult issue of base closures and realignments. The procedure applies to the closure or realignment of those military activities in the United States covered by section 2687 of title 10, United States Code.

Pursuant to the Act, the President nominated and the Senate confirmed members of the 1991 Defense Base Closure and Realignment Commission. The Secretary of Defense, as required by the Act, developed, circulated for comment, and published criteria for selecting military installations. In addition, the Secretary developed a long-term force structure plan, as required by the Act. On April 12, 1991, the Secretary published his recommendations, which called for the closure of 43 installations and the realignment of 28 others.

The Commission, assisted by the General Accounting Office, analyzed the Secretary's list. After a series of installation visits and public hearings, the Commission identified additional installations and activities for consideration for closure or realignment.

In its report to the President on July 1, the Commission recommended the closure of 34 installations and the realignment of 48 others. The President subsequently approved the Commission's report and forwarded it to Congress. If a resolution of disapproval is not enacted within the 45-day period specified in section 2904(b) of the Act, the closure and realignment recommendations of the Commission will have the force and effect of law.

The process followed by the Department and the Commission has come under intense public scrutiny. The committee has monitored this process closely. The Commission has worked hard to encourage public participation. All Commission hearings have been open, and many were extensively covered by the media. Although the committee reserves judgment on the merits of the Commission's recommendations, the committee believes that the process, in general, has operated in a manner consistent with the intent of the Act.

The experience of the last several months has highlighted a number of areas which call for improvement in the implementation of that process. The committee recommends the following improvements in the operation of the Act in the event that the Secretary of Defense recommends additional installations for closure or realignment in 1993 or 1995:

1. The time available to the Commission and to the General Accounting Office to analyze and make recommendations concerning the closures and realignments recommended by the Secretary of Defense would be increased by one month. This would be accomplished by establishing earlier deadlines for the Department of Defense to develop closure criteria, publish a long-term force structure plan, and for the Secretary to make his recommendations to the Commission. The revised deadline for the Secretary's recommendations would be March 15, rather than April 15.

In order to insure that the Commission has sufficient time to organize itself prior to receiving the Secretary's recommendations, the legislation would require the President to submit to the Senate a complete slate of nominees for the Commission within the statutory deadlines in January 1993 and January 1995 as a precondition for using the base closure procedures under the Act.

2. The legislation would clarify the procedures the Commission must use in considering for closure or realignment any installations or activities outside the list recommended by the Secretary. The Commission would be required to identify such installations and activities in the Federal Register at least 30 days prior to the submission of the Commission's report to the President, and to hold public hearings concerning these additional installations. The legis-

lation would make it clear that the Commission can add installations to the Secretary's list of recommended actions only if the Commission determines that the Secretary deviated substantially from the published force structure plan and final criteria. Any additions to the Secretary's list by the Commission must be consistent with the Department's force structure plan and the final criteria.

3. The legislation would provide that in 1992 and 1994 (the years in which the base closure process does not operate), no staff could be employed until October 1. At that time, the outgoing Chairman could appoint a staff of not more than 10 administrative personnel, whose sole function would be to perform such administrative functions as are necessary to prepare for the transition to new membership on the Commission in the following year.

4. Under current law, no more than one-third of the Commission's staff may be detailed from DOD. To further strengthen the independence of the staff, the legislation would provide the following additional limitations: (a) no more than one-third of the Commission's research and analysis staff could be detailed from DOD; (b) DOD personnel who had been personally involved in the development of Department closure and realignment initiatives during the previous 12 months could not be detailed to the Commission; and (c) no employee of the Department could render performance reports on Commission staff detailed from the DOD for the period of their service to the Commission.

5. To underscore the importance of base closure and realignment information submitted to the Secretary of Defense or to the Commission, the legislation would require persons in a position of responsibility with respect to such submissions to certify the accuracy and completeness of the information. In addition, the legislation would require that the Department, in the presentation of a military construction request, use the same estimates that were used by the Department during the base closure and realignment process for that project. In the event that there are any differences in project cost estimates (other than adjustments for inflation), the Department would be required to explain such differences in the budget justification material. In addition, the DOD Inspector General would investigate any project involving a significant difference between the estimates submitted to the Commission and the estimates in the budget request, to determine the reasons for the differences, including a determination as to whether any of the information submitted to the Commission was inaccurate, incomplete, or misleading in any material respect.

6. A key element to public support for the base closure process is the prompt disclosure to the Commission, GAO, and Congress of all information used by the Department in making its recommendations, including information about installations not on the list used for comparative purposes. The legislation would expressly set forth the Department's obligation to respond to any request from Congress, including a request from a committee or a Member of Congress, for any such information. Similarly, the legislation would encourage communications with the Defense Base Closure and Realignment Commission by expanding the applicability of prohibitions against interference with communications by members of the

armed forces contained in section 1034 of title 10, United States Code.

7. The legislation would establish the Department of Defense Base Closure Account as the sole source of funds for the environmental restoration of installations being closed under the Act.

8. The legislation would make it clear that Congress intended, in enacting the Defense Base Closure and Realignment Act, to exclude from the Act's coverage those facilities used primarily for civil works, rivers and harbors projects, flood control, or other projects not under the primary jurisdiction of the Department of Defense. This aspect of the recommended legislation has retroactive effect, ensuring that the Corps of Engineers civil works activities on the Commission's 1991 list are not subject to closure or realignment under the Act. This action would not have any effect on the balance of the Commission's recommendations, which are subject to review by Congress under section 2904(b) of the Act.

EXTENSION OF BENEFITS UNDER HOMEOWNERS ASSISTANCE PROGRAM

The committee recommends a provision (sec. 2803) that would amend section 1013 of Public Law 89-754 to expand the eligibility for benefits under the Homeowners Assistance Program to military and federal civilian employees who transferred within three years of the announcement of the closing of a military installation. This expansion would protect homeowners who retained primary residences near closing military bases, with the expectation of returning to serve at that location.

PART B—MILITARY CONSTRUCTION PROGRAM CHANGES

CONTRIBUTIONS TO STATES FOR ACQUISITION AND CONSTRUCTION OF JOINT-USE RESERVE COMPONENT FACILITIES

The committee recommends a provision (sec. 2821) that would amend section 2233(a)(2) of title 10, United States Code, to provide that the Secretary of Defense may contribute money to a state to acquire or construct facilities to be jointly used by a National Guard unit and a Reserve unit. Under current law, the Secretary may only contribute money to a state for the expansion, rehabilitation, or conversion of facilities owned by the state or the United States. This provision would encourage joint usage among Reserve components with potential operational and economic advantages.

INCREASED AUTHORITY FOR USE OF OPERATION AND MAINTENANCE FUNDS FOR ACQUISITION AND CONSTRUCTION OF RESERVE COMPONENT FACILITIES

The committee recommends a provision (sec. 2822) that would increase the threshold for operation and maintenance-funded minor construction projects for Reserve components from $200,000 to $300,000. This change would adjust the threshold for inflation, and keep it parallel to the threshold applicable under separate legislation in this bill for regular components.

PUBLIC-PRIVATE FINANCING AUTHORITIES

Three provisions of law, providing for tests of cooperative public-private ventures to supply needed services and facilities to the Department of Defense, expire at the end of fiscal year 1991. These test provisions allow for various innovative contract arrangements that permit private financing of needed services and facilities. These temporary authorities include section 2809 of title 10, United States Code, which authorizes the Department to enter into long-term contracts that combine service activities and their associated facilities; section 2828(g) of title 10, United States Code (referred to as section 801 of Public Law 98-115), which provides 20-year leases of family housing units that are privately financed, designed, and constructed; and section 2821 note of title 10, United States Code (referred to as section 802 of Public Law 98-115), which provides long-term rental guarantee contracts for family housing.

The administration's amended budget request included, among other provisions, two-year extensions of these three authorities. With the exception of the section 801 family housing build to lease program, there has been limited use of these authorities. Despite their limited use thus far, the committee believes that these authorities continue to represent an important alternative to military construction.

When properly applied, these authorities promote increased cooperation between the Department of Defense and the private sector and hold the potential for significant cost savings to the American taxpayer. The use of these authorities includes safeguards that require that such a project is anticipated to achieve a cost savings over military construction as validated by a full life-cycle economic cost analysis. Further, they permit the application of accepted business management analysis techniques in assessing the most economical method of meeting facility and services requirements. They are not meant to be used as a means for the government to acquire real property on an installment purchase basis. This does not preclude, however, the government allowing a contractor to abandon the contract site in lieu of site restoration at the end of the contract term, when such abandonment is deemed to be in the best interest of the government.

The committee believes that these authorities should be retained as a tool to improve the overall resource management of the Department's infrastructure.

The Budget Enforcement Act of 1990, which was enacted as title XIII of the Omnibus Budget Reconciliation Act of 1990, made changes in the accounting for long-term lease and lease purchase contracts. In addition, this Act, combined with the budget summit agreement, established deficit targets and associated enforcement procedures to set limits on annual discretionary spending. This committee remains committed to this effort to control spending. However, the application of new, innovative business management and financial policies, as represented by these three test authorities, should not and need not be incompatible with the prudent discretionary spending controls that are now in place. Accordingly, to preserve the flexibility inherent in these test authorities, the committee would modify them to conform to fiscal policy.

In order to bring these authorities into compliance with the agreed upon budget enforcement and full funding procedures, the committee would make the following general changes:

—**Projects proposed for third party financing** would need to be identified in the administration's budget request and would be authorized for solicitation. This would ensure that appropriate direct spending scoring procedures would be applied, as necessary, and that any authorized projects would automatically fall within the approved discretionary caps.

—**The practice of authorizing certain numbers of undesignated** family housing units or other types of facilities under these authorities would cease.

—**Contracts solicited under these authorities would stipulate** that future year funding would be subject to the future availability of budget authority specified in law, as well as the availability of appropriations.

—**Projects which are approved for third party financing** will, in addition to being identified in the administration's budget submission, be specifically authorized for solicitation annually. This practice, in addition to the current process of reporting the results of such solicitations to the cognizant Congressional committees, will insure that the Department pursues those initiatives which are directed, but awards contracts only when it is cost-effective to do so.

The committee recognizes that the changes necessary to bring each of these three authorities into compliance with fiscal policy differs for each authority.

PERMANENT AUTHORITY FOR LONG-TERM CONTRACT FACILITIES

The committee recommends a provision (sec. 2823) that would make permanent a test authority to enter into service contracts, which may include the provision of facilities for certain functions. Use of this authority by the Department of Defense has illustrated that in certain instances, such service contracts are more cost-effective alternatives than the provision of such services by the government.

The provision would require the Department to solicit for any such contracts which were identified in its budget request and which were authorized for that purpose.

In determining the scope of the government's liability for such initiatives and scoring for purposes of the Budget Enforcement Act of 1990, the committee believes that only the facility component of these contracts should be scored in the first year. Since the principal purpose of these contracts is the provision of services, the committee believes that the majority of the expense associated with these contracts which relates to the procurement of services should be scored annually.

TWO YEAR EXTENSION OF AUTHORITY TO LEASE MILITARY FAMILY HOUSING NEAR MILITARY INSTALLATIONS

The committee recommends a provision (sec. 2824) that would extend the test authority in section 2828(g)(8) of title 10, United States Code, for two years, until September 30, 1993. This provision would permit the Department of Defense to enter into long-term leases of family housing (the "section 801" program) when this approach is more cost-effective than military construction.

This provision would limit such contracts to off-post sites, and would require that they be identified in the budget submission by location, number of units, and overall cost in terms of net present value. This procedure will clearly illustrate the scope of the authority's application in any fiscal year. The provision would also direct the solicitation under this authority of projects which were authorized for that purpose.

Although the section 801 program cannot be made to work at all locations, the Department has demonstrated that it does provide needed housing more quickly and less expensively than the traditional military construction program at some locations. So far, the Services have secured about 9,000 housing units under this authority. The committee notes that when such projects are built on private land, the agreements meet the Office of Management and Budget criteria for classification as "operating leases" rather than as "capital leases." As such, the committee believes that outlays should be scored annually as payments are made under these agreements. Budget authority sufficient to cover the government's termination liability should be scored initially.

PERMANENT AND INCREASED AUTHORITY TO USE TURN-KEY SELECTION PROCEDURES

The committee recommends a provision (sec. 2825) that would make two changes in the authority to use one-step, turn-key construction contracting. The first change would repeal the current limit of three such projects per Service each year which is contained in section 2862(c) of title 10, United States Code. The second change would delete the current expiration date of October 1, 1991, and make this a permanent authority. The committee believes that turn-key construction procedures can offer advantages of time and expense in certain instances if competitive solicitation is used.

INCREASED COST LIMITATIONS FOR UNSPECIFIED MINOR CONSTRUCTION PROJECTS

The committee recommends a provision (sec. 2826) that would amend section 2805 of title 10, United States Code, to increase the threshold of unspecified minor construction projects from $1.0 million to $1.5 million. It would also increase the threshold for operation and maintenance-funded minor construction for the regular components from $200,000 to $300,000. These adjustments would return these thresholds to the approximate purchasing power of 1982, when they were last changed.

INCREASED LIMITATION ON MILITARY FAMILY HOUSING SPACE LOCATED IN HARSH CLIMATES

The committee recommends a provision (sec. 2827) that would authorize the Services to convert basements, attics, and other space within existing or planned family housing to indoor recreation space in areas where harsh weather severely restrict outdoor activity. This additional living space, no more than 300 square feet, would not be counted in computing the authorized net floor area authorized under section 2826(a) of title 10, United States Code. The application of this provision would be applied uniformly among the armed forces in accordance with regulations prescribed by the Secretary of Defense. The committee directs that these regulations be provided to the Committees on Armed Services of the Senate and the House of Representatives no later than 120 days after enactment of this bill.

PERMANENT AUTHORITY TO OBLIGATE CERTAIN FUNDS UNDER THE HOMEOWNERS ASSISTANCE PROGRAM

The committee recommends a provision (sec. 2828) that would repeal a September 30, 1991 expiration date for the use of funds transferred from the Base Closure Account to the Homeowners Assistance Account (HOA). Since the HOA is a revolving fund used to provide assistance to Defense Department employees who are adversely affected by the closure of military installations, eliminating the expiration date of these funds will permit their continued use as base closures generate increased calls against the HOA.

HEALTH, SAFETY, AND ENVIRONMENTAL QUALITY EMERGENCY CONSTRUCTION

The committee recommends a provision (sec. 2829) that would amend section 2803 of title 10, United States Code, to provide that emergency construction authority may be used when necessary for protection of the environment, health, or safety. Currently, this law is available to the Services only if a construction project is judged "vital to national security." The reprogramming authority available to each Service under this provision would remain $30.0 million per year.

OPTIONS ON REAL PROPERTY

The committee recommends a provision (sec. 2830) that would amend section 2677 of title 10, United States Code, to permit the Secretaries of the Military Departments to acquire an option to lease real property prior to obtaining approval to actually lease the property. The value of the option could, in no case, be more than 12 percent of the appraised annual fair market rental value of the property. This amendment would permit the Services to temporarily secure attractive, time sensitive leasing opportunities pending approval to proceed with the lease.

The provision would also require that prior to requesting any lease under section 2677, the Service screen assets of the Resolution Trust Corporation to determine if property for sale or lease by this entity might represent a more cost-effective alternative than a commercial lease.

MILITARY HOUSING RENTAL GUARANTEE PROGRAM

The committee recommends a provision (sec. 2831) that would extend the test authority contained in section 2821 note of title 10, United States Code, to September 30, 1993. The provision would also require the Services to submit with their annual budget requests, the number of projects, as well as their location and scope, which they plan to pursue under this authority in the budget year.

It would also direct the solicitation of projects under this authority which were authorized for that purpose.

The committee is pleased to note that the Department of Defense has awarded its first project under this authority at Marine Corps Air Station Kaneohe Bay, Hawaii. This contract promises to save the military families who rent these homes substantial sums compared to renting in the civilian market.

Contracts under this authority are neither leases nor lease purchases, but rather a government assurance that housing to be constructed under such contracts will be occupied at a level not to exceed historical occupancy rates in the area, usually 97 percent. All costs of constructing and maintaining the housing will be covered by the rent collected from individual housing occupants, rather than from the government. Since the government has no financial liability to the contractor other than its contingent liability should occupancy levels fall below the prescribed guarantee level, the committee believes that the scoring requirements of the Budget Enforcement Act of 1990 are inappropriate for contracts under this provision.

The committee believes that in certain instances, the section 802 program can offer substantial benefits to military families and to the military Services. In proposing projects under this and other third party financing authorities, the committee believes that the Defense Department must exercise prudence in insuring the long-term tenure of the military installations served by these facilities and services.

MODIFICATION OF AUTHORITY FOR INDEMNIFICATION OF LANDLORDS OF ARMED FORCES PERSONNEL AND RELATED COLLECTION AUTHORITY

The committee recommends a provision (sec. 2832) that would amend section 1055 of title 10, United States Code, to clarify the indemnification authority of military commanders to make the government whole when it has reimbursed landlords for damages to property caused by military personnel or their families. While this provision would provide no new or expanded indemnification authority, the committee anticipates that the clarification will assist in broadening the use of the existing authority.

CLARIFICATION OF THE AUTHORITY OF THE SECRETARIES OF THE MILITARY DEPARTMENTS TO LEASE NON-EXCESS PROPERTY

The committee recommends a provision (sec. 2833) that would amend section 2667(b) of title 10, United States Code, to clarify the provisions under which non-excess property may be leased and that non-monetary forms of compensation may be used in lieu of a cash payment of fair market value.

ACQUISITION OF LAND IN SUPPORT OF SPECIAL OPERATIONS FORCES AND ACTIVITIES

The committee recommends a provision (sec. 2834) that would authorize, on a one-year test basis, the expedited leasing and modification of facilities in support of special operations missions. The cost of each lease could not exceed $500,000, and the modifications or construction thereto could not exceed $750,000. This provision would expire on September 30, 1992.

LAW ENFORCEMENT AUTHORITY ON THE PENTAGON RESERVATION

Section 2804 of the National Defense Authorization Act for Fiscal Year 1991 transferred control of the Pentagon Reservation from the General Services Administration to the Department of Defense and established permanent authority (10 U.S.C. 2674) for operation and control of the Pentagon Reservation by the Department of Defense. The committee notes that the provision of law enforcement and security functions is vital to the sound management of this essential national defense facility. The committee recommends a provision that would clarify 10 U.S.C. 2674 by providing the Department of Defense with the same statutory authority concerning the performance of law enforcement and security functions as is provided to the General Services Administration under 40 U.S.C. 318.

PART C—LAND TRANSACTIONS

SANTA FE, NEW MEXICO

The committee recommends a provision (sec. 2841) that would authorize the Secretary of the Army to enter into a land exchange with the New Mexico State Armory Board in which the Army would convey its interest in the United States Army Reserve Center, Santa Fe, New Mexico, in exchange for approximately 13 acres of land which would be developed as a New Mexico National Guard complex. The Board would also design and construct a suitable replacement Reserve center and meet other conditions established by the Secretary to insure that the Army receives no less than fair market value for the site it conveys.

LAND EXCHANGE, SCOTT AIR FORCE BASE, ILLINOIS

The committee recommends a provision (sec. 2842) that would authorize the Secretary of the Air Force to enter into a value-for-value exchange of land and improvements at Scott Air Force Base, Illinois. This authority would permit the Secretary to transfer title to a family housing complex located on the extremity of Scott AFB to the County of St. Clair, Illinois, in exchange for another site planned to be adjacent to the remainder of the base, upon which the county has committed to constructing a like number of family housing units.

This initiative is one step towards a mutually agreed upon goal of establishing a civil aviation runway and support complex east of Scott AFB which, through a series of physical connections and support agreements, would develop the overall complex as a joint use airport. The committee understands that a variety of details regarding local, state, and Defense and Transportation Department involvement in this venture have yet to be completed. The recommended provision would provide a statutory basis upon which the Air Force could proceed with good faith negotiations towards this end.

REVISION OF LAND CONVEYANCE AUTHORITY, NAVAL RESERVE CENTER, BURLINGTON, VERMONT

The committee recommends a provision (sec. 2843) that would amend section 2837 of the National Defense Authorization Act for Fiscal Year 1991 regarding the conveyance of a Navy Reserve Center to the City of Burlington, Vermont, and the construction of a replacement center, partially funded by the city. Because of favorable cost estimates, the amendment would reduce the city's cash contribution from $1.5 million to $800,000.

The committee expects the Navy to work with the City of Burlington to mitigate the ancillary costs to the city associated with this initiative. The committee would support an arrangement whereby the city's contribution to the Navy is made gradually during the period of land acquisition and construction.

RELEASE OF REVERSIONARY INTEREST, BERRIEN COUNTY, MICHIGAN

The committee recommends a provision (sec. 2844) that would authorize the Secretary of the Navy to release to the state of Michigan a reversionary interest in approximately 1.7 acres of real property in Berrien County, Michigan. The release of this interest, which the Navy no longer needs, will permit an exchange of properties by the state and allow the construction of a previously authorized armory in support of the Michigan National Guard.

ACQUISITION OF INTERESTS IN LAND, BALDWIN COUNTY, ALABAMA

The committee recommends a provision (sec. 2845) that would authorize the Department of the Navy to acquire interest in approximately 60 acres of land within the runway clear zones at Outlying Landing Field Barin, Baldwin County, Alabama. No authorization of appropriation is required for this acquisition since funds are being provided through a transfer of $600,000 from the General Services Administration under that agency's Relocation and Asset Management Program. These funds represent approximately half of the value of the sale of land which is not excess, but which is severely encroached from aviation activities associated with its current use as Outlying Landing Field Site 6, Naval Air Station Whiting Field, Alabama.

LAND CONVEYANCE, NEW BEDFORD, MASSACHUSETTS

The committee recommends a provision (sec. 2846) that would authorize the Secretary of the Army to convey to the City of New Bedford two properties which are critical to the city's compliance with a court-ordered modernization of a sewage treatment system. In exchange for no less than fair market value for these properties, the city would agree to conduct the required environmental cleanup of the sites prior to their redevelopment as part of the court-ordered waste water system.

DIVISION C—DEPARTMENT OF ENERGY NATIONAL SECURITY AUTHORIZATIONS AND OTHER AUTHORIZATIONS

TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

Title XXXI would authorize appropriations for the atomic energy defense activities of the Department of Energy, including the purchase, construction, and acquisition of plant and capital equipment, research and development, naval nuclear propulsion, environmental restoration and waste management, production, operating, and other incidental expenses necessary to carry out the purposes of the Department of Energy Organization Act (Public Law 95-91).

The fiscal year 1992 budget request for the Department of Energy atomic energy defense activities totaled $11.768 billion. Of the total amounts requested, $6.635 billion was for defense programs operating expenses, $1.021 billion was for defense programs construction projects, $406.917 million was for defense programs capital equipment not related to construction, and $3.705 billion was for environmental restoration and waste management activities.

The committee recommends authorization of $12.044 billion, including $6.773 billion for defense programs operating expenses, $1.075 billion for defense programs construction projects, $440.4 million for defense program capital equipment not related to construction, and $3.755 billion for environmental restoration and waste management, less a general reduction of $76.3 million, for a total authorization of $11.968 billion.

The following table summarizes the request and the committee recommendation for authorization.

Fiscal Year 1992 Department of Energy National Security Programs

[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Weapons Activities	4,635.854	4,476.500	154.500	4,631.000	4,533.339	150.000	4,683.339
Operating Expenses	4,028.381	3,930.450	119.000	4,049.450	3,982.879	150.000	4,132.879
Construction	335.242	316.300	2.000	318.300	327.000	0.000	327.000
Capital Equipment	272.231	229.750	33.500	263.250	222.860	0.000	222.860
Materials Production	2,341.900	1,876.900	0.000	1,876.900	1,897.600	0.000	1,897.600
Operating Expenses	1,892.770	1,464.312	0.000	1,464.312	1,436.780	0.000	1,436.780
Construction	343.508	320.390	0.000	320.390	368.622	0.000	368.622
Capital Equipment	105.622	92.198	0.000	92.198	92.198	0.000	92.198
Verification and Control Technology	196.408	235.000	0.000	235.000	237.036	0.000	237.036
Operating Expenses	181.484	214.900	0.000	214.900	214.900	0.000	214.900
Construction	5.000	10.000	0.000	10.000	13.015	0.000	13.015
Capital Equipment	9.924	10.100	0.000	10.100	9.121	0.000	9.121
Nuclear Safeguards and Security	91.000	96.000	0.000	96.000	97.056	0.000	97.056
Operating Expenses	83.934	88.731	0.000	88.731	89.729	0.000	89.729
Construction	2.000	2.000	0.000	2.000	2.000	0.000	2.000
Capital Equipment	5.066	5.269	0.000	5.269	5.327	0.000	5.327
Security Investigations	65.000	62.600	0.000	62.600	63.299	0.000	63.299
Operating Expenses	65.000	62.600	0.000	62.600	63.299	0.000	63.299
Office of Security Evaluations	0.000	15.000	0.000	15.000	15.000	0.000	15.000
Operating Expenses	0.000	15.000	0.000	15.000	15.000	0.000	15.000
New Production Reactors	375.000	500.000	52.000	552.000	506.000	0.000	506.000
Operating Expenses	134.900	152.335	0.000	152.335	158.335	0.000	158.335
Construction	231.300	336.465	52.000	388.465	336.465	0.000	336.465
Capital Equipment	8.800	11.200	0.000	11.200	11.200	0.000	11.200
Naval Reactors	652.000	801.000	20.000	821.000	807.000	0.000	807.000
Operating Expenses	569.200	706.400	20.000	726.400	711.400	0.000	711.400
Construction	27.400	36.200	0.000	36.200	35.200	0.000	35.200
Capital Equipment	55.400	58.400	0.000	58.400	60.400	0.000	60.400
Environmental Restoration & Waste Mgmt	3,159.852	3,705.000	49.800	3,754.800	4,075.500	0.000	4,075.500
Operating Expenses	2,495.977	3,175.442	20.700	3,196.142	3,336.430	0.000	3,336.430
Construction	543.958	407.726	29.100	436.826	612.472	0.000	612.472
Capital Equipment	119.917	121.832	0.000	121.832	126.598	0.000	126.598
Education programs	50.000	0.000	0.000	0.000	0.000	0.000	0.000
Davis–Bacon Amendments	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total, DOE Operating Expenses	9,501.646	9,810.170	159.700	9,969.870	10,008.742	150.000	10,158.742
Total, DOE Plant Construction Expenses	1,488.408	1,429.081	83.100	1,512.181	1,695.374	0.000	1,695.374
Total, DOE Capital Equipment	576.960	528.749	33.500	562.249	527.704	0.000	527.704
General Reduction			(76.300)	(76.300)			
Total, DOE Defense Activities	11,567.014	11,768.000	200.000	11,968.000	12,231.820	150.000	12,381.820

RESEARCH AND DEVELOPMENT OPERATING EXPENSES

In addition to new weapons designs, this program provides for weapons safety and alternative weapons concepts, such as pit reuse and remanufacturing. Research and development activities are key to ensuring that the existing weapons stockpile is safe, as well as ensuring that advances continue to be made in weapons safety.

Enhanced research and development activities are a critical prerequisite to designing the smaller, more efficient weapons complex of the future. In doing this, the Department of Energy must aggressively pursue new weapons concepts such as pit reuse, non-plutonium weapons, and more generic design and manufacturing techniques. The committee directs the Department of Energy and the weapons laboratories to increase their efforts and funding for these concepts.

The committee agrees with the overall recommendation of the Drell panel report on nuclear weapons safety that safety, security, and control of nuclear weapons systems need to be the top priorities of the Department of Energy's research and testing activities in the future. It is clear from hearings of this committee and the House Armed Services Committee that there are serious safety issues. For instance, the committee commends Secretary Cheney's prompt action to remove SRAM-As from alert bombers once a problem was brought to his attention and hopes that this and subsequent actions reflect a priority on safety on the part of both the Department of Defense and the Department of Energy.

Most of the recommendations of the Drell panel can be implemented administratively, and the committee looks forward to prompt action by the two Departments. The committee believes that top priority should be given to the upgrade of the existing weapons stockpile with modern electronic safety systems, insensitive high explosives, fire-resistant pits, and other safety features. Some of the design choices made in the Cold War era to maximize weapons performance may well have been appropriate at that time, but would not be made today. The committee has provided additional funds for the research and testing program as discussed above. The committee expects the majority of those additional funds to be used on research and testing for safety enhancements and pit reuse.

COMPLEX 21

The complex of the future must be smaller, more efficient, and it must also be designed to produce little or no waste during the manufacturing process. The Department of Energy should study the total cost of weapons production, including the waste recycling and disposal costs, and undertake a more complete program to design weapons and manufacturing techniques to reduce the amount of waste generated.

One of the first tasks associated with the complex of the future that the Department of Energy will face is the design and construction of a facility to replace the operations currently carried out at the Rocky Flats Plant. The committee directs the Department of Energy to immediately begin research and development activity necessary to support design activity for a new facility to replace the Rocky Flats Plant.

DOE/DOD JOINT MUNITIONS DEVELOPMENT PROGRAM

The committee directs the Department of Energy to establish a joint Department of Energy/Department of Defense munitions technology development program to complement the joint munitions programs described in title II of this report. Of the funds authorized to be appropriated pursuant to section 3101, the Department of Energy should allocate funds to the weapons laboratories for development of new concepts for conventional munitions. These funds should be utilized by the laboratories for the basic pre-proposal research and development necessary to implement the joint program. The committee recommends funding the program at a level commensurate with the Department of Defense program.

FUNDING

The Department of Energy has requested $1,047.218 million for operating expenses for weapons research and development activities for fiscal year 1992. The committee recommends authorization of $1,198.6 million for fiscal year 1992, an increase of $151.0 million above the request. The committee recommends an additional $132.0 million for the increased core research and development requirements; an additional $18.0 million for technology commercialization; and an additional $1.0 million for inertial confinement fusion.

Of the funds authorized for technology commercialization, the committee recommends that $10.0 million be used to implement the memorandum of understanding between the National Center for Manufacturing Sciences and the Secretary of Energy to transfer advanced manufacturing technologies from the Department of Energy multi-purpose laboratories and production facilities to the United States manufacturing base.

Of the funds authorized for operating expenses for weapons research and development, the committee recommends that $15.0 million be used to implement the manufacturing technology partnerships established pursuant to section 3138, that $15.0 million be used to implement the critical technology partnerships established pursuant to section 3137, and that $10.0 million be used to implement the advanced materials synthesis and processing partnerships established pursuant to section 3139.

B-90 NUCLEAR DEPTH STRIKE BOMB

The National Defense Authorization Act for Fiscal Year 1991 provided $16.0 million for the B-90 nuclear depth strike bomb and delayed the program for one year. Both the committee's report (S. Rept. 101-384) and the House Armed Services Committee report (H. Rept. 101-665) directed the Navy to justify, in detail, the mission of and the need for the B-90. The Department of Energy requested $10.0 million in construction funds, plus funds for production and research for the B-90, in fiscal year 1992. The Navy submitted a report that supported a continued mission and need for the B-90 but that did not request funding for fiscal year 1992. Because there is no immediate need for the B-90, the committee does not recommend funds for the program in fiscal year 1992.

The committee recommends that funds for research and development associated with the B-90 remain in the research and development account but be redirected for other higher priority purposes, such as weapons safety. The committee also recommends a reduction in production and surveillance activities of $50.0 million to reflect the B-90 delay.

TESTING

The committee recommends an authorization of $519.377 million for weapons testing for fiscal year 1992. This is an increase of $18.0 million above the administration's request. This increase is necessary to meet additional testing requirements incident to increased emphasis on weapons safety, pit reuse, remanufacturing, and other innovative weapons design techniques.

CHEMICAL AND METALLURGY RESEARCH LABORATORY

The committee recommends authorization of $34.0 million for project 90-D-102, the Chemical and Metallurgy Research Laboratory at Los Alamos National Laboratory, an increase of $12.0 million above the administration's request.

LIVERMORE ROADS

The committee recommends $1.8 million in road improvements at Lawrence Livermore Laboratory as contained in Project 87-D-104, Safeguards and Security Enhancements, Lawrence Livermore National Laboratory, Livermore, California. The City of Livermore has made road improvements that specifically, but not exclusively, benefit the Lawrence Livermore Laboratory. While the Department of Energy has reimbursed the city for improvements adjacent to the site, there is continuing uncertainty about the Department of Energy's contribution policy for past road improvements, as well as future improvements. The committee believes that the Department of Energy should be responsible for a reasonable portion of road improvements adjacent to the laboratory.

The committee recommends that the Department of Energy formulate a policy for funding road improvements that would be applicable to all Department sites, in consultation with the City of Livermore and other affected government entities, and report to the congressional defense committees on a recommended policy not later than February 1, 1992.

NEW PRODUCTION REACTORS

Four years ago, the committee took the first steps toward modernizing the Department of Energy nuclear weapons complex. One of the first and most pressing needs of the production complex was to assure a continued supply of tritium gas. Tritium, a rare form of radioactive hydrogen gas, and a key component of nuclear weapons, has not been produced since August 1988 when the reactors at the Department of Energy Savannah River Site, in Aiken, South Carolina, were shut down. Unlike other material used in nuclear weapons, such as plutonium and uranium, tritium can be stored for a only a short period of time. Continued replacement of tritium is necessary because it decays at the rate of about 5.5 percent per year. Thus, about half of the original supply is left at the end of 12.3 years.

The committee's position on the need for new production reactor capacity remains the same:

> The committee strongly supports the acquisition of new production capacity, believing that an assured supply of tritium is the highest nuclear material priority in support of the Nation's nuclear deterrence forces. (S. Rept. 101-81, 101st Cong., 1st Sess. 255 (1989).)

Whatever the size of the nation's nuclear weapons arsenal, an assured supply of tritium will be needed.

While the tritium supply remains acute, it has been tempered somewhat over the past year by an increased number of weapons retirements. Some tritium has been available from these returned weapons. In addition, as the number of nuclear weapons needed to maintain a strong deterrent decreases, the amount of tritium needed will also decrease.

The Department of Energy, recognizing that tritium supply needs have changed over the past year and a half, changed the course of the New Production Reactor program. In January 1991, the Department of Energy announced that it was planning to build only one new reactor, rather than two as originally announced in August 1988. Part of the Department of Energy decision to build one reactor, rather than two, was to delink the reactor technologies from the potential sites.

The original plan called for a heavy water reactor to be built at the Savannah River Site and a modular high temperature gas reactor to be built at the Idaho National Engineering Laboratory. Under the new plan, one of the two reactors will be built at one of the two sites. As a contingency, the Department of Energy is also developing a light water reactor tritium target for possible use in the partially completed WNP-1 light water reactor, located adjacent to the Hanford Site in Richland, Washington. A final decision on both the site and the technology for the new production reactor will be made in late 1991 or early 1992 following completion of an environmental impact statement.

The Department of Energy must continue to pursue aggressively its New Production Reactor program. The committee is concerned that the funding requested by the administration will not keep the New Production Reactor program on schedule to produce tritium by the year 2000. The continued unavailability of the K-reactor at Savannah River requires the Department of Energy to devote sufficient funding to assure that new tritium production capability is available by the year 2000. Even if the K-reactor can be restarted in the fall of 1991, as the Department of Energy now hopes, the reliability of this 40-year-old reactor will remain questionable. Realistically, tritium production in the aging K-reactor should be viewed only as an interim measure until new reactor production capability is brought on-line.

In hearings before this committee and in a recent General Accounting Office report on tritium supply, questions have been raised about an alternative to reactor production for tritium. Theoretically, tritium could be produced using accelerator technology. The committee urges the Department of Energy to continue to pursue accelerator technology as a long-term option for tritium production. If sufficient advances are made in the technology, accelerator production may be a follow-on technology to the New Production Reactor. In the short term, however, the committee views a New Production Reactor as the most appropriate mechanism for tritium production.

The administration requested $500.0 million for fiscal year 1992 and $506.0 million for fiscal year 1993. The committee is concerned that this amount of funding is not sufficient to achieve new production capacity by the year 2000. To keep the program on schedule, the committee recommends $552.0 million for fiscal year 1992, an increase of $177.0 million over the fiscal year 1991 funding level. The 47 percent increase in fiscal year 1992 funding is necessary to maintain timely acquisition of new reactor capability.

NAVAL REACTORS

The Naval nuclear reactors program is responsible for the development and safe operation of naval nuclear propulsion plants. For the Navy to meet its national defense objectives, nuclear powered surface ships and submarines must continue to operate safely and effectively. The Naval nuclear reactors program has experienced increasing development costs. This increase is primarily associated with increased environmental and safety costs for the advanced test reactor at the Idaho National Engineering Laboratory. As a result of these increased costs, the program has had to defer some important development work. In addition, the Naval nuclear reactors program would like to explore the feasibility of reducing future enrichment costs by using enriched uranium from excess nuclear weapons stockpiles.

The committee recommends $726.4 million for the Naval nuclear reactors program. This is an increase of $20.0 million above the administration's request.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

The committee recommends authorization of $3.8 billion for environmental restoration and waste management, an increase of $49.8 million above the administration's request. The committee is pleased that after three years of substantial congressional increases to this account, the Department of Energy has, as this committee has consistently urged, requested funding in this account and in the supplemental request, sufficient to meet the Department of Energy's obligations, at the time the budget was submitted.

ENVIRONMENTAL PROGRAM MANAGEMENT

Section 3132 would permanently establish a Department of Energy environmental restoration and waste management program and account and a five-year planning process. In addition, section 3132 would allow the Department of Energy to make grants to states and Indian tribes as appropriate.

HANFORD WASTE VITRIFICATION PLANT

As a result of recent negotiations with the State of Washington and the Environmental Protection Agency, the Department of Energy has entered into amendments to the three-party agreement governing clean-up of the Department of Energy Hanford Site. As a result of these negotiations, the Department of Energy has agreed to provide an additional $43.9 million for the waste vitrification plant; $1.7 million in waste management operating expenses; and $42.2 million for construction project 88–D–173, for a total project authorization of $79.2 million.

HANFORD HEALTH INFORMATION NETWORK

Of the funds authorized in the National Defense Authorization Act for Fiscal Year 1991, $5.0 million was authorized for the States of Washington, Oregon, and Idaho to develop and implement programs for the benefit of persons who may have been exposed to radiation released from the Department of Energy Hanford Site between the years 1944 and 1972. The states were directed to evaluate and, if feasible, implement a registry and monitoring program for the exposed individuals.

In May 1991 the states submitted their report and plan to implement the Hanford Health Information Network Plan. The plan anticipates that the program will be fully implemented over three years beginning in fiscal year 1992, thus, only $75,000 was necessary in fiscal year 1991. The committee recommends that of the funds authorized to be appropriated to the Department of Energy, $1.554 million be available for fiscal year 1992, $1.750 million be available for fiscal year 1993, and $1.750 million be available for fiscal year 1994 to implement the program.

HEALTH ASSESSMENTS

The committee recommends authorization of $1.082 billion for environmental restoration, an increase of $8.0 million above the administration request. This increase is necessary to prepare site specific health assessments at all nuclear weapons sites.

Two years ago, the committee asked the Congressional Office of Technology Assessment (OTA) to evaluate what is known about the contamination and public health problems at the nuclear weapons complex. The OTA completed its report in February 1991. The report found that "the waste and contamination problems at the Department of Energy weapons complex are serious and complicated, and many public concerns about potential health and environmental impacts have not yet been addressed." The OTA report also found that the Department of Energy lacks a "coherent strategy for evaluating potential off-site human exposure to radioactive and hazardous contaminants, a coordinated and scientifically sophisticated approach for evaluating potential human health impacts from contamination, and an open process for public involvement in identifying risks and setting priorities for reducing risks." In testimony before the committee, the OTA suggested that the Agency for Toxic Substances and Disease Registry would be an appropriate independent agency to conduct the health assessments.

The committee directs the Department of Energy to immediately complete agreements with the Agency for Toxic Substances and Disease Registry to conduct health assessments at Department of Energy nuclear weapons sites. In addition, the committee directs the Department of Energy to include in the agreements provisions to provide the Agency for Toxic Substances and Disease Registry with all information necessary to carry out site specific health assessments.

PUBLIC PARTICIPATION

In addition to identifying a lack of effective public involvement in the health assessment process, the OTA report also found that the Department of Energy had not yet developed "an effective process for public involvement in setting priorities and making important decisions." The committee directs the Department of Energy to review the organizational structure and effectiveness of the many existing outside groups and consider adopting a more uniform, more comprehensive, and more organized system of citizen advisory groups for environmental restoration and waste management activities at each of the weapons facilities.

In conducting this review, the Department of Energy should consider a mechanism that would provide any boards with funds sufficient to hire independent technical experts as well an administrative support person. The Department of Energy should consult with the Environmental Protection Agency and state regulatory authorities, as well as the existing advisory groups and other interested groups and individuals, in making recommendations.

The committee remains concerned that in spite of the Department of Energy's many efforts and considerable progress towards regaining public credibility, there is apparently still a good deal of public mistrust and misunderstanding. The committee looks forward to receiving the result of this review.

TECHNOLOGY DEVELOPMENT

The committee recommends an increase of $10.0 million for technology development for the accelerator transmutation of waste program at the Los Alamos National Laboratory.

ENVIRONMENTAL AND MOLECULAR SCIENCES LABORATORY

The committee recommends authorization of $4.0 million for the Environmental and Molecular Sciences Laboratory at the Hanford Site, project 91-E-100, a reduction of $13.1 million from the administration's request. This laboratory was originally sponsored and funded by the Energy Research Office at the Department of Energy, a non-defense function. The Department of Energy has not fully explained either the purpose of the laboratory or its proposed relationship to Department of Energy defense activities. Moreover, the committee is concerned that construction of this laboratory will reduce or duplicate research being carried out at existing Department of Energy defense and multi-program laboratories. The committee recommends a delay of one year to allow a more complete explanation of the purpose for the laboratory mission and its effect on the workload of the existing laboratories.

SCHOLARSHIP AND FELLOWSHIP PROGRAM

Section 3131 would require the Secretary of Energy, through the Office of Environmental Restoration and Waste Management, to establish a scholarship and fellowship program to provide the Department of Energy an additional source of trained environmental professionals. The Department of Energy, other federal agencies, and the regulatory community face a shortage of qualified environmental professionals to carry out environmental restoration and compliance activities. This section would set forth the criteria for acceptance and the terms of the agreement between the scholar and the Department of Energy. In addition, the section would provide for repayment and penalty provisions in the event the scholar does not fulfill his employment commitment to the Department of Energy. The committee recommends an increase of $1.0 million for program implementation.

CONTAINER TECHNOLOGIES FOR DEFENSE RADIOACTIVE WASTE

The committee is aware of several promising technologies for reducing the potential risks associated with seams and weld stresses in containers for defense radioactive waste. The committee supports this research and asks for a report from the Department of Energy by February 1, 1992, evaluating the application of seamless deep drawn canister technology and ductile iron canister technology for this purpose and discussing any planned activities or resource requirements.

INERTIAL CONFINEMENT FUSION

Inertial confinement fusion is a laboratory scale, controlled nuclear fusion that occurs in a small deuterium-tritium sphere or pellet. To achieve the nuclear fusion, the sphere or pellet must be compressed so that it stays intact long enough to allow the nuclear fusion to occur. Theoretically, laser beams should be able to provide sufficient energy to compress the pellet. The inertial confinement fusion program seeks to achieve a small thermonuclear explosion in the laboratory to study weapons physics and nuclear weapons effects, and, in the long term, to explore the possibility of using inertial confinement fusion as an energy source. A significant amount of heat energy produced by the explosion could be used to generate electricity.

The Secretary of Energy commissioned the National Academy of Sciences to review the inertial confinement fusion program. This review was completed in September 1990. The committee is pleased that the Department of Energy has begun to implement the recommendations made by the National Academy of Sciences. To allow full implementation of these recommendations, the committee recommends $197.0 million for the inertial confinement fusion program, which includes $166.3 million for operating expenses and $30.7 million for capital equipment. This is an increase of $14.5 million over the administration's request.

The committee requests the Department of Energy to explore the possibility of creating a separate construction project account for the NOVA laser project, and, if appropriate, include such a line item in the administration's budget request for fiscal year 1993.

W–79

Section 3104 would prohibit any funding to support modifications to the W–79 8-inch artillery-fired atomic projectile during fiscal year 1992. This work should be delayed for one year to allow further time to review the necessity of the modification.

GENERAL PLANT PROJECTS

Section 3122 would prevent the initiation of authorized "general plant projects" if the current estimated cost for any project exceeds $2.0 million, until the Secretary of Energy notifies the congressional defense committees of the reasons for the cost variation. The $2.0 million cap is an increase of $800,000 above the previous cap of $1.2 million. The $1.2 million cap, which has remain unchanged since 1985, has reduced the Department of Energy's flexibility to address minor maintenance and operating problems.

EMERGENCY CONSTRUCTION DESIGN AUTHORITY

Section 3125 would allow the Department of Energy, upon certification by the Secretary of Energy, to begin design and construction in an emergency situation, using funds previously authorized for construction activities, and following congressional notification 30 days prior to any expenditures.

PRIVATE SECTOR PARTICIPATION IN DEPARTMENT OF ENERGY WASTE CLEAN-UP AND MODERNIZATION

The committee believes that the entrepreneurial spirit, innovation, and energy of the private sector could be brought to bear on the Department of Energy environmental restoration and waste management activities. Current law, however, does not adequately allow for private sector participation in Department of Energy clean-up. The Atomic Energy Act envisioned government-owned, contractor-operated facilities, and thus only allows for short-term contracting for manager operators. The committee recommends a provision that would allow the Department of Energy to utilize the option of privately-capitalized, privately-owned, and privately-operated facilities on or near the Department of Energy clean-up sites. This option could be extremely useful to the Department of Energy clean-up effort.

Section 3133 would authorize the Department of Energy to contract competitively with private firms to provide products and services in connection with waste clean-up, should the Department of Energy wish to pursue this option. The provision would authorize a limited 5-year program and would allow long-term cleanup contracts. At the end of the contract period, the government would have the option to take over ownership of the facility or require the contractor to decommission the facility. The provision would require each contractor to fully comply with all applicable environmental and safety statutes and labor agreements, and would include provisions for government take-over of the site if the contractor failed to live up to certain conditions.

ROCKY FLATS

The committee remains concerned about the Rocky Flats facility and believes that new facilities are needed elsewhere. On the other hand, the committee continues to believe that plutonium manufacturing capability is necessary to maintain a reliable and safe, albeit reduced, nuclear weapons stockpile, in the short-term. The Rocky Flats facility, however, should be operated only for that period of time necessary for national security and only until a new replacement facility is available. In addition, operations at Rocky Flats should be resumed only if they can be carried out in a manner adequate to ensure public health and safety and that is environmentally sound.

The committee is very concerned about the time and the money that has been spent on the Rocky Flats plant to date. While no facility should be operated unless it can be operated safely, the committee is concerned that Rocky Flats may never be able to be operated safely. For that reason, the committee urges the Energy Department to make a decision on the future of the Rocky Flats plant within one year and answer the question—Is Rocky Flats capable of being restarted within one year or should the Department shift its efforts and very limited dollars away from refurbishment of the Rocky Flats plant and toward construction of a new facility at a new site?

Section 3135 would require the Secretary of Energy to respond to the Defense Nuclear Facilities Safety Board (DNFSB) recommendations numbered 90-2, 90-5 and 91-1 to the Board's satisfaction. To assist the public in its understanding of the activities associated with restart, the committee directs the DNFSB to prepare and to make publicly available an analysis of Department of Energy actions taken at the Rocky Flats plant to ensure that plutonium operations can be conducted in a manner consistent with adequate protection of public health and safety.

Section 3135 directs the Defense Science Board, in conjunction with the Nuclear Weapons Council, to prepare a series of reports on pit reuse. In addition to safety considerations, any decision to restart the Rocky Flats plant can only be made with a clear understanding of the ability to reuse existing pits in the manufacture of new weapons. This report should address all the major issues associated with pit reuse, include testing requirements, performance trade-offs, if any, and schedule requirements.

WORKER PROTECTION AT NUCLEAR WEAPONS FACILITIES

Section 3136 would allow the Secretary of Energy to establish a grant program to develop criteria and to train workers engaged in hazardous substances response or emergency response actions. Any grants awarded shall be to non-profit organizations. In addition, this section would authorize the Secretary to establish, by regulation, a mechanism to ensure that contractor employees engaged in hazardous substances response or emergency response actions are adequately trained. The provision would allow the Secretary to assess a penalty of up to $5,000 per day if contractor employees were not adequately trained.

TECHNOLOGY AND MANUFACTURING PARTNERSHIPS

The committee believes that the Department of Energy's defense-related research and development activities should reflect the growing convergence of military and commercial technologies and the globalization of high-technology industry. This must involve enhanced cooperation between Department of Energy laboratories and industry using various forms of cooperative partnerships. The committee is convinced that Department of Energy laboratories can work with industry on a broad range of dual-use technologies, including advanced materials, manufacturing, computing hardware and software, and waste remediation. Such cooperation would benefit these laboratories by integrating them into the larger and more dynamic commercial sector. The committee fully expects to see an increasing number of "spin-ons" from the commercial sector to the Department of Energy and the Department of Defense weapons-related programs in the years ahead.

The committee recommends three provisions that would establish partnerships between the Department of Energy and industrial partners in the areas of critical technology development, advanced manufacturing technology, and advanced materials synthesis and processing. At least one Department of Energy defense laboratory must be involved in each partnership established. Industry participants should take the lead roles in directing these partnerships, and industry participation in each partnership should be sufficiently broad to ensure that a basis for future competition will exist. The committee also encourages selection of partnership proposals in which the risk level is so high as to otherwise preclude timely private sector investments.

The-provisions would require that a minimum of 50 percent of the funding over the life of a partnership be derived from non-federal sources. However, private sector contributions may be adjusted, in terms of timing and support of particular activities, to fit the needs of each partnership established. The committee also intends that the value of the contributions made by non-federal participants may include the fair market value of equipment, services, materials, and other assets directly related to implementing the partnership.

The committee recommends $15.0 million for fiscal year 1992 to support establishment of critical technology partnerships, $15.0 million for fiscal year 1992 to establish at least three advanced manufacturing technology partnerships, and $10.0 million for fiscal year 1992 to support at least two advanced materials synthesis and processing partnerships.

The committee also recommends $50.0 million in fiscal year 1992 for technology commercialization activities authorized under the National Competitiveness Technology Transfer Act of 1989 (Public Law 101-189), an increase of $18.0 million above the administration's amended budget request. The committee has been disappointed at the Energy Department's slow pace of approval for cooperative research and development agreements at the laboratories and directs the Department to streamline its review process in the spirit of the original legislation.

Fiscal Year 1992 Department of Energy National Security Programs

[Amounts in millions of dollars]

Operating Expense	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Weapons Activities							
Research and development	1,042.218	1,047.600	151.000	1,198.600	1,079.600	150.000	1,229.600
Inertial Confinement Fusion	(157.900)	(165.300)	(1.000)	(166.300)			
Testing	437.268	447.500	18.000	465.500	433.700	0.000	433.700
Production and surveillance	2,444.180	2,273.600	(50.000)	2,223.600	2,298.600	0.000	2,298.600
Program direction	104.715	161.750	0.000	161.750	170.979	0.000	170.979
Total, Weapons Activities	4,028.381	3,930.450	119.000	4,049.450	3,982.879	150.000	4,132.879
Materials Production							
Reactor operations	811.457	584.418	0.000	584.418	572.526	0.000	572.526
Processing of nuclear materials	628.969	531.217	0.000	531.217	531.217	0.000	531.217
Supporting services	292.043	305.433	0.000	305.433	289.793	0.000	289.793
Enriched material	117.801						
Program direction	42.500	43.244	0.000	43.244	43.244	0.000	43.244
Total, Materials Production	1,892.770	1,464.312	0.000	1,464.312	1,436.780	0.000	1,436.780
Verification and Control Technology	181.484	214.900	0.000	214.900	214.900	0.000	214.900
Nuclear Safeguards and Security	83.934	88.731	0.000	88.731	89.729	0.000	89.729
Security Investigations	65.000	62.600	0.000	62.600	63.289	0.000	63.289
Office of Security Evaluations		15.000	0.000	15.000	15.000	0.000	15.000
New Production Reactors	134.900	152.335	0.000	152.335	158.335	0.000	158.335
Naval Reactors							
Plant development	89.300	93.000	6.000	99.000	97.800	0.000	97.800
Reactor development	258.900	268.997	4.000	272.997	261.060	0.000	261.060
Reactor operation and evaluation	207.000	205.600	9.000	214.600	213.000	0.000	213.000
Program direction	14.000	15.963	1.000	16.963	16.700	0.000	16.700
Enriched material, operating		122.840	0.000	122.840	122.840	0.000	122.840
Total, Naval Reactors	569.200	706.400	20.000	726.400	711.400	0.000	711.400
Education programs	50.000						
Subtotal, DOE Defense Activities Operating Expenses	7,005.669	6,634.728	139.000	6,773.728	6,672.312	150.000	6,822.312

Fiscal Year 1992 Department of Energy National Security Programs

[Amounts in millions of dollars]

Construction	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Weapons Activities							
GPD-101, general plant projects, various locations	27.100	28.800	0.000	28.800	26.843	0.000	26.843
GPD-121, general plant projects, various locations	36.350	34.700	0.000	34.700	35.608	0.000	35.608
92-D-102, nuclear weapons research, development, and testing facilities revitalization, Phase IV, various locations		6.600	0.000	6.600	18.700	0.000	18.700
92-D-122, health physics/environmental projects, Rocky Flats Plant, Golden, Colorado		7.200	0.000	7.200	3.000	0.000	3.000
92-D-123, plant fire/security alarm systems replacement, Rocky Flats Plant, Golden, Colorado		5.200	0.000	5.200	3.000	0.000	3.000
92-D-125, master safeguards and security agreement/materials surveillance task force security upgrades, Rocky Flats Plant, Golden, Colorado		3.500	0.000	3.500	2.000	0.000	2.000
92-D-126, replace emergency notification systems, various locations		4.200	0.000	4.200	4.200	0.000	4.200
91-D-122, short range attack missile tactical (SRAM T) production facilities, various locations	15.000	23.372	0.000	23.372	22.800	0.000	22.800
91-D-123, production assurance transformer replacement, Kansas City Plant, Missouri	2.000						
91-D-124, safeguards and security upgrades, Phase III, Mound Facility, Miamisburg, Ohio	1.100						
91-D-125, environmental, safety and health upgrades, Phase III, Mound Facility, Miamisburg, Ohio							

Fiscal Year 1992 Department of Energy National Security Programs

[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
91-D-126, health physics calibration facility, Mound Plant, Miamisburg, Ohio	1.000	4.000	0.000	4.000			
91-D-127, criticality alarm and production annunciation utility replacement, Rocky Flats Plant, Golden, Colorado	6.600				2.000	0.000	2.000
90-D-102, nuclear weapons research, development, and testing facilities revitalization, Phase III, various locations	9.600	22.100	12.000	34.100	44.115	0.000	44.115
90-D-122, production capabilities for the nuclear depth/strike bomb (ND/SB), various locations		10.000	(10.000)	0.000	10.948	0.000	10.948
90-D-123, follow on to lance warhead production facilities, various locations							
90-D-124, high explosives (HE) synthesis facility, Pantex Plant, Amarillo, Texas		12.927	0.000	12.927			
90-D-126, environmental, safety, and health enhancements, various locations	8.500	1.428	0.000	1.428	1.444	0.000	1.444
89-D-125, plutonium recovery modification project, Rocky Flats Plant, Golden, Colorado							
89-D-126, environmental, safety and health upgrade, Phase II, Mound Plant, Miamisburg, Ohio	0.480						
88-D-104, safeguards and security upgrade, Phase II, Los Alamos National Laboratory, Los Alamos, New Mexico	1.000	1.515	0.000	1.515	1.000	0.000	1.000
88-D-105, special nuclear materials research and development laboratory replacement, Los Alamos National Laboratory, Los Alamos, New Mexico					10.000	0.000	10.000

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
88-D-106, nuclear weapons research, development, and testing facilities revitalization, Phase II, various locations	72.547	53.608	0.000	53.608	34.915	0.000	34.915
88-D-122, facilities capability assurance program, various locations	106.806	47.473	0.000	47.473	78.000	0.000	78.000
88-D-123, security enhancements, Pantex Plant, Amarillo, Texas	18.244	30.000	0.000	30.000	26.000	0.000	26.000
88-D-124, fire protection upgrade, various locations	1.481						
88-D-125, high explosive machining facility, Pantex Plant, Amarillo, Texas	8.840						
88-D-126, personnel radiological monitoring laboratories, various locations	1.600						
87-D-104, safeguards and security enhancement II, Lawrence Livermore National Laboratory, Livermore, California	1.150	4.650	0.000	4.650			
87-D-122, short-range attack missile II (SRAM II) warhead production facilities, various locations	8.634						
86-D-130, tritium loading facility replacement, Savannah River Plant, Aiken, South Carolina	2.360						
85-D-105, combined device assembly facility, Nevada Test Site, Nevada	4.242	12.027	0.000	12.027	3.027	0.000	3.027
85-D-121, air and water pollution control facilities, Y-12 Plant, Oak Ridge, Tennessee		3.000	0.000	3.000			
Total, Weapons Activities Construction	335.242	316.300	2.000	318.300	327.600	0.000	327.600

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Materials Production							
GPD-146, general plant projects, various locations	36.994	40.000	0.000	40.000	40.040	0.000	40.040
93-D-140, fuel dissolver process upgrade, Idaho National Engineering Laboratory, Idaho					15.000	0.000	15.000
93-D-141, Y-12 ventilation upgrades, Y-12 Plant, Oak Ridge, Tennessee					4.000	0.000	4.000
93-D-142, Y-12 safety improvements, Y-12 Plant, Oak Ridge, Tennessee					1.000	0.000	1.000
93-D-143, Y-12 seismic upgrades, Y-12 Plant, Oak Ridge, Tennessee					2.000	0.000	2.000
93-D-144, administration center, Savannah River, South Carolina					4.300	0.000	4.300
93-D-145, emergency management center, Savannah River, South Carolina					1.300	0.000	1.300
93-D-146, health protection laboratory, Savannah River, South Carolina					5.000	0.000	5.000
93-D-147, domestic water system upgrade, Savannah River, South Carolina					5.000	0.000	5.000
93-D-148, replace high/low level drain lines, Savannah River, South Carolina					2.000	0.000	2.000
93-D-149, replace laundry facility, Savannah River, South Carolina					4.830	0.000	4.830
93-D-150, upgrade site road system infrastructure, Savannah River, South Carolina					4.833	0.000	4.833
92-D-140, P and H canyon exhaust upgrades, Savannah River, South Carolina		12.000	0.000	12.000	34.000	0.000	34.000

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
92-D-141, reactor seismic improvement, Savannah River, South Carolina		14.200	0.000	14.200	20.000	0.000	20.000
92-D-142, nuclear material processing training center, Savannah River, South Carolina		2.500	0.000	2.500	12.000	0.000	12.000
92-D-143, health protection instrument calibration facility, Savannah River, South Carolina		2.000	0.000	2.000	8.000	0.000	8.000
92-D-150, operations support facilities, Savannah River, South Carolina		3.000	0.000	3.000	5.750	0.000	5.750
92-D-151, plant maintenance and improvements, Phase I, Savannah River, South Carolina		4.060	0.000	4.060	0.000	0.000	0.000
92-D-153, engineering support facility, Savannah River, South Carolina		8.017	0.000	8.017	7.000	0.000	7.000
91-D-143, increase 751-A electrical substation capacity, Phase I, Savannah River, South Carolina	6.000	2.614	0.000	2.614	3.391	0.000	3.391
91-D-145, new whole body counter facility, Savannah River, South Carolina	4.350	0.000	0.000	0.000	0.000	0.000	0.000
91-D-148, reactor charge/discharge training simulator, Savannah River, South Carolina							
90-D-141, Idaho chemical processing plant fire protection, Idaho National Engineering Laboratory, Idaho	6.000	12.000	0.000	12.000	1.553	0.000	1.553
90-D-143, plutonium finishing plant fire safety and loss limitation, Richland, Washington	2.500						
90-D-149, plantwide fire protection, Phases I and II, Savannah River, South Carolina	49.100	39.000	0.000	39.000	60.000	0.000	60.000

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
90-D-150, reactor safety assurance, Phases I, II, and III, Savannah River, South Carolina	32.600	14.530	0.000	14.530	4.764	0.000	4.764
90-D-151, engineering center, Savannah River, South Carolina	4.000	0.105	0.000	0.105	0.000	0.000	0.000
89-D-140, additional separations safeguards, Savannah River, South Carolina	16.300	28.150	0.000	28.150	11.011	0.000	11.011
89-D-148, improved reactor confinement system, Savannah River, South Carolina	12.800	12.121	0.000	12.121	13.500	0.000	13.500
88-D-153, additional reactor safeguards, Savannah River, South Carolina	1.000	6.528	0.000	6.528	3.728	0.000	3.728
87-D-159, environmental, health, and safety improvements, Phases I, II, III, IV, and V, Feed Materials Production Center, Fernald, Ohio	14.133						
86-D-149, productivity retention program, Phases I, II, III, IV, V, and VI, various locations	61.750	36.865	0.000	36.865	53.738	0.000	53.738
85-D-139, fuel processing restoration, Idaho Fuels Processing Facility, Idaho National Engineering Laboratory, Idaho	87.900	82.700	0.000	82.700	40.484	0.000	40.484
85-D-145, fuel production facility, Savannah River, South Carolina	8.481						
Total, Materials Production	343.509	320.390	0.000	320.390	368.622	0.000	368.622

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Verification and control technology							
91-D-192, foreign technology assessment center, Lawrence Livermore National Laboratory, Livermore, California							
90-D-186 center for national security and arms control, Sandia National Laboratories, Albuquerque, New Mexico	5.000	10.000	0.000	10.000	13.015	0.000	13.015
Total, Verification and control technology	5.000	10.000	0.000	10.000	13.015	0.000	13.015
Nuclear Safeguards and Security							
GPD-186, general plant projects, Central Training Academy, Albuquerque, New Mexico	2.000	2.000	0.000	2.000	2.000	0.000	2.000
Total, Nuclear Safeguards and Security	2.000	2.000	0.000	2.000	2.000	0.000	2.000
New Production Reactors							
92-D-300, new production reactor capacity, various locations		334.465	52.000	386.465	326.965	0.000	326.965
92-D-301, new production reactor (NPR) safety center, Los Alamos National Laboratory, New Mexico		2.000	0.000	2.000	9.500	0.000	9.500
88-D-154, new production reactor capacity, various locations (design only)	231.300						
Total, New Production Reactors	231.300	336.465	52.000	388.465	336.465	0.000	336.465

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Naval Reactors							
GPN-101, general plant projects, various locations	8.600	8.500	0.000	8.500	8.500	0.000	8.500
93-D-200, planning summary					2.200	0.000	2.200
92-D-200, laboratories facilities upgrades, various locations		4.900	0.000	4.900	7.500	0.000	7.500
90-N-102, expended core facility dry cell project, Naval Reactors Facility, Idaho	4.000	15.000	0.000	15.000	13.600	0.000	13.600
90-N-103, advanced test reactor off-gas treatment system, Idaho National Engineering Laboratory, Idaho	1.800	2.800	0.000	2.800	0.500	0.000	0.500
90-N-104, facilities renovation, Knolls Atomic Power Laboratory, Niskayuna, New York	7.900	5.000	0.000	5.000	2.900	0.000	2.900
89-N-102, heat transfer test facility, Knolls Atomic Power Laboratory, Niskayuna, New York	3.600						
88-N-102, expended core facility receiving station, Naval Reactors Facility, Idaho	1.500						
Total, Naval Reactors Construction	27.400	36.200	0.000	36.200	35.200	0.000	35.200
Subtotal, DOE Defense Activities Plant Construction	944.450	1,021.355	54.000	1,075.355	1,082.902	0.000	1,082.902

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[Amounts in millions of dollars]

Capital Equipment	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Weapons Activities	272.231	229.790	33.500	263.290	222.880	0.000	222.880
(Inertial Confinement Fusion)	(17.100)	(17.200)	(13.500)	(30.700)			
Materials Production	105.622	92.198	0.000	92.198	92.198	0.000	92.198
Verification and control technology	9.924	10.100	0.000	10.100	9.121	0.000	9.121
Nuclear Safeguards and Security	5.066	5.260	0.000	5.260	5.327	0.000	5.327
New Production Reactors	8.800	11.200	0.000	11.200	11.200	0.000	11.200
Naval Reactors	55.400	58.400	0.000	58.400	60.400	0.000	60.400
Subtotal, DOE Defense Activities Capital Equipment	457.043	406.917	33.500	440.417	401.106	0.000	401.106

Fiscal Year 1992 Department of Energy National Security Programs
[Amounts in millions of dollars]

Environmental Restoration & Waste Mgmt

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
Operating Expenses	2,495.977	3,175.442	20.700	3,196.142	3,336.430	0.000	3,336.430
Corrective Activities - Environment	43.846	27.689	0.000	27.689	32.319	0.000	32.319
Corrective Activities - Defense Programs	17.808	33.518	0.000	33.518	39.123	0.000	39.123
Environmental Restoration	894.141 a/	1,074.392	8.000	1,082.392	1,181.831	0.000	1,181.831
Waste Management	1,266.550	1,722.096	1.700	1,723.796	1,758.782	0.000	1,758.782
Technology Development	213.480	274.778	11.000	285.778	277.109	0.000	277.109
Transportation Management		18.220	0.000	18.220	20.042	0.000	20.042
Program Direction	24.106	24.749	0.000	24.749	27.224	0.000	27.224
Program Direction/Landlord							
Waste Transportation & Site Mgmt b/	36.046						
Construction							
OP-D-171, General Plant Projects c/ c/	63.689 c/	88.027	0.000	88.027	87.562	0.000	87.562
93-D-XXX, new starts, various locations					20.000	0.000	20.000
92-D-171, mixed waste receiving and storage, Los Alamos National Laboratory, Los Alamos, New Mexico		6.640	0.000	6.640	3.000	0.000	3.000
92-D-172, hazardous waste treatment and processing facility, Pantex Plant, Amarillo, Texas		2.400	0.000	2.400	4.950	0.000	4.950

a/ Includes $30 million transferred from the Department of Defense to DOE for decontamination and decommissioning of the Ap Facility.

b/ This activity is being requested in FY 1992 by its constituent parts, (i.e., Waste Management-Landlord, Transportation Mana Program Direction lines.)

c/ Includes $13.556 million for Waste Transportation & Site Management.

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
92-D-173, NOx abatement facility, Idaho Chemical Processing Plant, Idaho National Engineering Laboratory, Idaho		7.000	0.000	7.000	7.000	0.000	7.000
92-D-174, sanitary landfill, Idaho National Engineering Laboratory, Idaho		10.000	0.000	10.000	2.000	0.000	2.000
92-D-176, B plant safety class ventilation upgrades, Richland		4.400	0.000	4.400	8.400	0.000	8.400
92-D-177 tank 101-AZ waste retrieval system, Richland		5.800	0.000	5.800	5.800	0.000	5.800
92-D-180, inter-area line upgrade, Savannah River, Aiken, South Carolina		2.100	0.000	2.100	8.400	0.000	8.400
92-D-181, fire and life safety improvements, Idaho National Engineering Laboratory, Idaho		3.000	0.000	3.000	8.000	0.000	8.000
92-D-182, sewer system upgrade, Idaho National Engineering Laboratory, Idaho		2.100	0.000	2.100	3.700	0.000	3.700
92-D-183, transportation complex, Idaho National Engineering Laboratory, Idaho		0.895	0.000	0.895	5.860	0.000	5.860
92-D-184, Hanford infrastructure underground storage tanks, Richland		0.300	0.000	0.300	3.700	0.000	3.700
92-D-185, road, ground, and lighting safety improvements, 300/1100 areas, Richland		0.800	0.000	0.800	6.300	0.000	6.300

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
92-D-186, steam system rehabilitation, Phase II, Richland		0.400	0.000	0.400	17.900	0.000	17.900
92-D-187, 300 area electrical distribution conversion and safety improvements, Phase II, Richland		1.100	0.000	1.100	11.160	0.000	11.160
92-D-402, sanitary sewer system rehabilitation, Lawrence Livermore National Laboratory, California		3.000	0.000	3.000	5.500	0.000	5.500
92-D-403, tank upgrades project, Lawrence Livermore National Laboratory, California		3.500	0.000	3.500	7.200	0.000	7.200
91-D-125, environmental, safety, and health upgrades, Phases III, Mound Plant, Miamisburg, Ohio							
91-D-170, Idaho National Engineering Laboratory transporation complex, Idaho	a/						
91-D-171, waste receiving and processing facility module 1, Richland, Washington	2.700	7.400	0.000	7.400	28.800	0.000	28.800
91-D-172, high-level waste tank farm replacement, Idaho Chemical Processing Plant, Idaho National Engineering Laboratory, Idaho	43.000	30.000	0.000	30.000	79.000	0.000	79.000

a/ Requested under Waste Transportation and Site Management.

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
91-D-173, hazardous low-level waste processing tanks, Savannah River, South Carolina	5.800	10.100	0.000	10.100	12.300	0.000	12.300
91-D-175, 300 area electrical distribution conversion and safety improvements, Phase I, Richland, Washington	a/ a/ 0.900 a/	4.419	0.000	4.419	0.981	0.000	0.981
91-E-100, environmental and molecular sciences laboratory, Richland, Washington	0.000 b/	17.100	(13.100)	4.000	49.600	0.000	49.600
90-D-103, environment, safety, and health improvements, various locations	4.200				6.115	0.000	6.115
90-D-125, steam ash disposal facility, Y-12 Plant, Oak Ridge, Tennessee	6.000	8.122	0.000	8.122			
90-D-126, environment, safety, and health improvements, various locations		7.419	0.000	7.419			
90-D-171, laboratory ventilation and electrical system upgrade, Richland, Washington	4.100	1.116	0.000	1.116			
90-D-172, aging waste transfer lines, Richland, Washington	4.000	6.000	0.000	6.000	1.219	0.000	1.219
90-D-173, B plant canyon crane replacement, Richland, Washington	4.300	5.800	0.000	5.800	0.700	0.000	0.700

a/ $900K was appropriated under Waste Transportation and Site Management.

b/ In FY 1991, this activity was appropriated under the ESR&D appropriation ($5,170K).

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[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
90-D-174, decontamination laundry facility, Richland, Washington	9.900	3.700	0.000	3.700	0.442	0.000	0.442
90-D-175, landlord program safety compliance-I, Richland, Washington	a/ 10.870	8.840	0.000	8.840	4.733	0.000	4.733
90-D-176, transuranic (TRU) waste facility, Savannah River, South Carolina	15.300	5.500	0.000	5.500	17.400	0.000	17.400
90-D-177, RWMC transuranic (TRU) waste treatment and storage facility, Idaho National Engineering Laboratory, Idaho Falls, Idaho	26.000	25.000	0.000	25.000	45.000	0.000	45.000
90-D-178, TAA retrieval containment building, Idaho National Engineering Laboratory, Idaho Falls, Idaho	30.600	4.490	0.000	4.490			
89-D-122, production waste storage facilities, Y-12 plant, Oak Ridge, Tennessee	3.500	9.238	0.000	9.238	4.200	0.000	4.200
89-D-126, environmental, safety, and health upgrade, Phase II, Mound Plant, Miamisburg, Ohio	1.723	0.041	0.000	0.041			
89-D-141, M-area waste disposal, Savannah River, South Carolina	7.300	4.170	0.000	4.170			
89-D-142, reactor effluent cooling water thermal mitigation, Savannah River, South Carolina	45.600						

a/ Includes $8.230 million requested under Waste Transportation and Site Management.

Fiscal Year 1992 Department of Energy National Security Programs

[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
89-D-171, Idaho National Engineering Laboratory road renovation, Idaho	a/ 7.300 a/						
89-D-172, Hanford environmental compliance, Richland, Washington	70.160	27.700	0.000	27.700	50.770	0.000	50.770
89-D-173, tank farm ventilation upgrade, Richland, Washington	3.400	4.231	0.000	4.231			
89-D-174, replacement high-level waste evaporator, Savannah River, South Carolina	25.330	14.145	0.000	14.145	19.855	0.000	19.855
89-D-175, hazardous waste/mixed waste disposal facility, Savannah River, South Carolina	7.600	4.330	0.000	4.330	9.057	0.000	9.057
88-D-102, sanitary wastewater systems consolidation, Los Alamos National Laboratory, Los Alamos, New Mexico	3.900	1.546	0.000	1.546			
88-D-173, Hanford waste vitrification plant, Richland, Washington	75.500	37.000	42.200	79.200	38.000	0.000	38.000
87-D-159, environment, health, and safety improvements, Phases I, II, III, & VI, Feed Materials Production Center, Fernald, Ohio	27.586						

a/ Requested under Waste Transportation & Site Management.

Fiscal Year 1992 Department of Energy National Security Programs

[Amounts in millions of dollars]

	FY 1991 Appropriation	FY 1992 Authorization Request	Change To Request	FY92 Senate Authorization	FY 1993 Authorization Request	Change To Request	FY93 Senate Authorization
87-D-181, diversion box and pump pit containment buildings, Savannah River, South Carolina		4.697	0.000	4.697	2.145	0.000	2.145
86-D-103, decontamination and waste technology, Lawrence Livermore National Laboratory, Livermore, California		5.060	0.000	5.060	16.203	0.000	16.203
83-D-148, non-radioactive hazardous waste management, Savannah River, South Carolina	15.000	9.100	0.000	9.100	9.300	0.000	9.300
77-13-F, waste isolation pilot plant, Delaware Basin, Southeast, New Mexico	16.900						
Subtotal, ER & WM Construction	543.958	407.726	29.100	436.826	612.472	0.000	612.472
Capital Equipment	119.917	121.832	0.000	121.832	126.598	0.000	126.598
Corrective Activities - Environment	1.980	1.249	0.000	1.249	1.458	0.000	1.458
Corrective Activities - Defense Programs	0.000	6.520	0.000	6.520	7.610	0.000	7.610
Environmental Restoration	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Waste Management	82.019	95.913	0.000	95.913	103.208	0.000	103.208
Technology Development	16.820	17.500	0.000	17.500	13.607	0.000	13.607
Transportation Management	0.000	0.650	0.000	0.650	0.715	0.000	0.715
Program Direction	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Program Direction/Landlord	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Waste Transportation & Site Mgmt	19.090	0.000	0.000	0.000	0.000	0.000	0.000
Program slippage due to delays in permitting							
Total, Environmental Restoration & Waste Mgmt	3,159.852	3,705.000	49.800	3,754.800	4,075.500	0.000	4,075.500
Subtotal, DOE Defense Activities	11,567.014	11,768.000	276.300	12,044.300	12,231.820	150.000	12,381.820
Davis-Bacon Amendment (DP)							
Davis-Bacon Amendment (EM)							
General Reduction			(76.300)	(76.300)			
Total, DOE Defense Activities	11,567.014	11,768.000	200.000	11,968.000	12,231.820	150.000	12,381.820

TITLE XXXII—DEFENSE NUCLEAR FACILITIES SAFETY BOARD AUTHORIZATION

Section 3202 would enlarge the Defense Nuclear Facilities Safety Board's oversight jurisdiction to include the Nevada Test Site and the Pantex facility. The provision also would provide that the Safety Board's oversight authority extends to health and safety issues that arise out of operations at the two facilities and not to issues associated with weapons safety or design.

The committee also requests the Safety Board to expand its activities, pursuant to existing statutory authority, over environmental restoration and waste management operations. The Safety Board has been very involved with the Hanford waste tanks and other limited issues arising out of Department of Energy environmental restoration and waste management, but the committee would like the Safety Board to take a more involved role in this area. The Safety Board should consider patterning its activities in this area along the lines suggested by the Office of Technology Assessment in its report *Complex Cleanup*, prepared at the committee's request.

Section 3202 would increase the Safety Board's statutory employee ceiling from 100 to 150 full-time equivalents. This change is necessary to accommodate the Safety Board's increased responsibilities.

Section 3202 would clarify the Safety Board's authority to hire experts non-competitively.

TITLE XXXIII—NATIONAL DEFENSE STOCKPILE

The National Defense Stockpile was established in 1946 and contains a stock of strategic and critical materials to decrease U.S. dependence on foreign sources of supply in times of a national security emergency. In July 1988, the President transferred management of the National Defense Stockpile from the General Services Administration and the Federal Emergency Management Agency to the Department of Defense and designated the Secretary of Defense as the National Defense Stockpile Manager.

The requirements or goals for materials to be held in the stockpile have remained relatively unchanged for the last two decades. Section 2(c)(2) of the Strategic and Critical Materials Stock Piling Act (50 U.S. Code 98) states that:

> "The quantities of materials stockpiled under this Act should be sufficient to sustain the United States for a period of not less than three years during a national emergency situation that would necessitate total mobilization of the economy of the United States for a sustained conventional global war of indefinite duration."

In the committee's view, this legislative requirement and the current stockpile requirements are not based on threat assessments and planning assumptions that reflect the political, economic, and military changes in the Soviet Union and Eastern Europe.

Section 14 of the Critical Materials and Stock Piling Act (50 U.S.C. 98h-5) requires the Secretary of Defense to "submit to Congress an annual report on stockpile requirements." This report shall include "the Secretary's recommendations with respect to stockpile requirements." Although no report on stockpile requirements has been submitted to Congress this year, Defense Department officials have indicated that they are completing work on a new study of stockpile requirements, and preliminary information indicates that these requirements will decline from $21 billion to $5-7 billion. The committee urges the Department to submit this study to the Congress for its review as soon as it is completed. The committee also urges the Department to review the legislative requirement for the quantities of materials to be stockpiled and to make recommendations to the Congress for any appropriate changes.

The committee recommends several provisions to improve the management and efficiency of stockpile operations and to broaden the authority of the Stockpile Manager to conduct research to develop substitutes for stockpile material.

Section 3301 would authorize disposals of 11 materials from the National Defense Stockpile that have been determined to be excess to the current requirements. Section 3302 would authorize the Stockpile Manager to obligate $133.7 million from the National Defense Stockpile Transaction Fund during fiscal year 1992. Of this amount, $25.0 million may be obligated for materials development and research projects.

Section 3311 would clarify the authority of the Stockpile Manager under section 8 of the Stock Piling Act (50 U.S. Code 98g) to conduct materials development and research with funds from the National Defense Stockpile Transaction Fund. This section would amend subsection (d) of section 8 to allow the Stockpile Manager to encourage the conservation of strategic and critical materials by making grants or awarding contracts for research to develop substitutes for critical and strategic materials and to develop more efficient methods of production or use of critical and strategic materials or their substitutes. Section 3311 would also specifically authorize the use of funds from National Defense Stockpile Transaction Fund for these activities, and would require that any materials research and development carried out with Stockpile Transaction Fund money must be identified to Congress in the Annual Materials Plan. The committee intends that research conducted under this authority should be carried out under the oversight and direction of the Director, Defense Research and Engineering.

Section 3312 would amend section 3 of the Stock Piling Act (50 U.S.C. 98b) to allow changes in stockpile requirements to take place 30 calendar days after notification of Congress rather than requiring authorizing legislation, or, in the case of a change of less than 10 percent, requiring an effective date after the start of the next fiscal year.

Section 3313 would amend section 5 of the Stock Piling Act (50 U.S.C. 98d) to allow changes in the Annual Materials Plan to become effective 30 calendar days after notification of the appropriate committees of Congress rather than 30 days on which either House is not in session. This provision would also eliminate the prohibition on disposals of stockpile materials when the unobligated balance in the National Defense Stockpile Transaction Fund is above $100 million and the two-year limit on expenditure of funds appropriated from the Fund.

Section 3314 would amend section 6 of the Stock Piling Act (50 U.S.C. 98e) to expand the conditions under which the Stockpile Manager can provide for the rotation of stockpile materials to include technological obsolescence.

Section 3315 would amend section 9 of the Stock Piling Act (50 U.S.C. 98h) to authorize Stockpile Transaction Fund monies to be used for maintenance and disposal activities related to the stockpile.

Section 3316 would amend section 11 of the Stock Piling Act (50 U.S. Code 98h-2) to change the semi-annual report on stockpile operations to an annual report. This section would also change the requirement in section 14 of the Stock Piling Act (50 U.S. Code 98h-5) for an annual report to Congress by the Secretary of Defense to a biennial report.

Section 3317 would amend section 16 of the Stock Piling Act (50 U.S. Code 98h-7) to delete the prohibition on disposals from the stockpile when the position of National Defense Stockpile Manager is vacant.

TITLE XXXIV—CIVIL DEFENSE

The amended budget request included $153.6 million for fiscal year 1992 and $152.7 million for fiscal year 1993 for activities authorized under the Federal Civil Defense Act of 1950, as amended. The committee recommends a reduction of $10.0 million for fiscal year 1992 and $15.0 million for fiscal year 1993. The Defense Department testified that the risk of a nuclear war with the Soviet Union is lower than at any time in the postwar period. Therefore, the committee believes that civil defense expenditures can be reduced at acceptable risk.

TITLE XXXV—PANAMA CANAL COMMISSION

This title authorizes expenditures from the Panama Canal Revolving Fund for the operation and maintenance of the Panama Canal and adjusts the executive level and the pay of the Administrator of the Panama Canal Commission commensurate with the responsibilities of that office.

The Panama Canal operates on a self-sustaining basis, utilizing tolls and other revenues paid by canal users. Appropriated funds are not utilized for the operation and maintenance of the canal.

The committee notes that there has been a smooth transition as Mr. Gilberto Guardia Fabrega became the first Panamanian Administrator of the Panama Canal Commission. Although not directly related to this authorization, the committee is concerned over the lack of action by the Government of Panama to prepare itself to assume responsibility for the operation and maintenance of the canal at the start of the next century. It is understandable that Panama may have had higher priorities as it struggled to overcome the abuses of many years without a constitutional, democratic government. It is very important, however, for the Government of Panama to take early and effective action to prepare to operate the canal if the international maritime community's confidence is to be retained as the date approaches for transfer of responsibility from the United States to Panama.

DEPARTMENTAL RECOMMENDATIONS

By letter dated April 30, 1991, the General Counsel of the Department of Defense forwarded to the President of the Senate proposed legislation "To authorize appropriations for fiscal years 1992 and 1993 for military functions of the Department of Defense and to prescribe military personnel levels for fiscal years 1992 and 1993, and for other purposes." The transmittal letter and proposed legislation were officially referred as Executive Communication 1143 to the Committee on Armed Services on May 14, 1991. Senators Nunn and Warner introduced this legislative proposal as S. 1066, by request, on May 14, 1991. The statement made by Senator Nunn upon introduction of S. 1066, together with the text of the legislation, appear in the *Congressional Record* of May 14, 1991 on pages S5779–5784.

By letter dated February 14, 1991, the General Counsel of the Department of Defense forwarded to the President of the Senate proposed legislation "To authorize certain construction at military installations for Fiscal Years 1992/1993, and for other purposes." The transmittal letter and proposed legislation were officially referred as Executive Communication 631 to the Committee on Armed Services on February 26, 1991. Senators Nunn and Warner introduced this legislative proposal as S. 875, by request, on April 18, 1991. The statement made by Senator Nunn upon introduction of S. 875, together with the text of the legislation, appear in the *Congressional Record* of April 18, 1991 on pages S4767–4776.

By letter dated March 19, 1991, the Acting General Counsel of the Federal Emergency Management Agency forwarded to the President of the Senate proposed legislation "To authorize appropriations for civil defense programs for fiscal years 1992 and 1993." The transmittal letter and proposed legislation were officially referred as Executive Communication 949 to the Committee on Armed Services on April 19, 1991.

COMMITTEE ACTION

In accordance with the Legislative Reorganization Act of 1946, as amended by the Legislative Reorganization Act of 1970, there is set forth below the committee vote to report the National Defense Authorization Act for Fiscal Years 1992 and 1993.

In favor: Senators Nunn, Exon, Levin, Kennedy, Bingaman, Dixon, Glenn, Gore, Wirth, Shelby, Byrd, Warner, Thurmond, Cohen, McCain, Wallop, Lott, Coats, Mack, and Smith.

Opposed: None.

Vote: 20–0.

The other roll call votes on amendments to the bill which were considered during the course of the mark-up have been made public and are available at the committee.

FISCAL DATA

Section 252 of the Legislative Reorganization Act of 1970 (Public Law 91-510) requires that the report accompanying each bill reported by a Senate committee contain certain information on five-year cost projections.

The letter received in compliance with this statutory requirement is shown below. The bill is an annual authorization and does not, within its own terms, generate costs beyond fiscal years 1992 and 1993 even though the funds authorized to be obligated by this act may not be expended for several years in the future. The fiscal year authorizations herein provided are reviewed annually by the committee and the Congress.

COMPTROLLER OF THE DEPARTMENT OF DEFENSE
WASHINGTON DC 20301-1100

123E

MAR 25 1991

Honorable Sam Nunn
Chairman
Committee on Armed Services
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

In accordance with Section 252 of the Legislative Reorganization Act of 1970 (P.L. 91-510), the chart below provides an estimate of how appropriations attendant to the FY 1992 Authorization Request will expend.

Estimated Expenditures
($ in Millions)

FY 1992 Request:	$201,277
FY 1992	106,006
FY 1993	47,487
FY 1994	24,942
FY 1995	11,135
FY 1996	7,157
Beyond	4,550

Cordially,

Sean O'Keefe

cc:

Honorable John Warner
Ranking Republican

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

It was impracticable to include the Congressional Budget Office cost estimate on this legislation because it was not available at the time the report was filed. It will be included in material presented during floor debate on the legislation.

REGULATORY IMPACT

Paragraph 11(b) of rule XXVI of the Standing Rules of the Senate requires that a report on the regulatory impact of a bill be included in the report on the bill. The committee finds that there is no regulatory impact in the case of the National Defense Authorization Act for Fiscal Years 1992 and 1993.

CHANGES IN EXISTING LAW

Pursuant to the provisions of paragraph 12 of rule XXVI of the Standing Rules of the Senate, the changes in existing law made by certain portions of the bill have not been shown in this section of the report because, in the opinion of the committee, it is necessary to dispense with showing such changes in order to expedite the business of the Senate and reduce the expenditure of funds.

JJ Exon

ADDITIONAL VIEWS OF MR. EXON

The Fiscal Years 1992/1993 defense authorization bill reported out by the Senate Armed Services Committee is the product of an ongoing effort to redefine the size and structure of our nation's military. Last year, the committee was faced with the difficult task of marking up an Administration defense budget out of step with the reality of an expiring Warsaw Pact threat in Europe and a mounting federal budget crisis here at home. The final Fiscal Year 1991 bill set in to motion a plan of sizeable manpower cuts over a period of five years which would sensibly track with changes in the military force structure. These cuts combined with a pervasive philosophy of "fly before buy," whereby programs are not rushed into production prior to being adequately tested, resulted in a 1991 defense bill which was both fiscally responsible and maintained a strong national defense.

Our nation's involvement in the Persian Gulf War highlights the volatility of world affairs. At a time when US-USSR relations continue to progress and treaty agreements to reduce conventional forces in Europe (CFE) and nuclear weaponry (START) move toward ratification, the proliferation of third-world arm sales, particularly nuclear, chemical, and ballistic missile technology, has created instability in many regions of the world. The "lessons learned" from the war were many and have been reflected in the committee's 1992/1993 defense bill. The bill enhances tactical intelligence for military commanders, including two additional JSTARS aircraft, bolsters both the sealift and mine warfare programs, funds equipment modernization packages for the Marine Corps and the reserve forces, and maintains the technology edge which proved valuable in the Gulf War by increasing funding for manufacturing technology and research and development initiatives.

The importance of our technological superiority, in particular the value of stealth, was no more evident than in the performance of the F-117 stealth fighter during the war. As a result of the plane's performance, the committee, with a great deal of foresight, terminated the production of unneeded F-16 fighters in order to procure 24 additional F-117 planes. The B-2 bomber is an evolutionary leap forward in stealth technology and represents a vital step in modernizing our nuclear triad and aging heavy bomber force. As in previous years, the committee fully funded the Administration's B-2 request of four aircraft with restrictions on spending of the funds until the B-2 successfully passes tests that will prove its operational capability.

If the F-117's performance during the war spoke to the value of stealth technology for future aircraft, so did the performance of the Patriot missile defense against Scud attacks lend credence to the idea of moving forward with a ground-based, ABM treaty compliant strategic defense system to protect the American people against an accidental, limited, and/or Third World nuclear missile attacks. To the credit of Senators Nunn and Warner and all the rest of the committee members, the compromise reached in the area of SDI funding and report language was carefully and wisely crafted so as to provide our nation with a cost-effective, anti-missile architecture against a limited attack without compromising nuclear stability between superpowers or reversing the trend towards negotiating further reductions in nuclear weapons. Nothing in this bill is as potentially far-reaching and controversial than the committee's actions in the area of SDI. Yet, after years of ever-changing and unrealistic SDI system concepts, the committee bill goes a long way toward making a limited protection system a reality before the end of the decade.

In summary, I urge my colleagues to support this bill. But it is by no means perfect. There are certain Cold War anachronisms contained in the bill, specifically, the Rail Garrison MX prototype train procurement ($225 million) and SRAM-T tactical nuclear missile development ($34 million of a total program cost of $1.2 billion), which will not enhance the security of our nation or that of our allies and represent little more than wasteful spending. At a time of austere defense spending and rising federal debt, these untapped sources of savings should be considered further.

Carl Levin

FY 1992 DOD AUTHORIZATION BILL -- COMMITTEE REPORT
ADDITIONAL VIEWS -- SENATOR CARL LEVIN

This bill shows that the Armed Services Committee has learned one set of lessons but ignored another.

The committee has acted on many lessons of Desert Storm, by taking initiatives to address material and operational deficiencies in the U.S. armed forces. Tactical reconnaissance, intelligence, combat identification, countermine warfare, all-weather smart munitions and improved food and soldier-support items all receive attention in the committee's bill. The bill strengthens the National Guard and Reserves, providing the equipment they need to be trained and ready, and also includes major modernization packages for the Marine Corps. The bill protects our industrial base in key areas, authorizing additional Patriot missiles, Bradley fighting vehicles, Multiple Launch Rocket Systems and M-1 tank upgrades. And the committee invests in stealth technology that has proven itself under battle conditions by procuring additional F-117 aircraft. Together these actions show the committee is thinking about the future and acting to prepare U.S. military for real threats with the right forces.

But the committee has not acted on a most important lesson -- the Cold War is over. This bill's provisions on strategic nuclear weapons ignore the sweeping global changes and the diminishing threat facing the U.S. and its allies from the Soviet Union and Warsaw Pact forces. The Warsaw Pact has formally disbanded, the Senate is preparing to recommend ratification of the Conventional Forces in Europe Treaty, and President's Bush and Gorbachev have agreed to a START Treaty that will make deep cuts in the most threatening Soviet nuclear forces.

In addition, the largest economic powers have committed to help the Soviet Union in its attempts to build a modern economy that can be integrated with international markets, and our own State Department has undertaken a technical assistance program to provide advice on defense industry conversion, democratic institution-building, food distribution, energy and environment, economic and financial institution-building, market support, and social safety nets.

Against this background of closer cooperation, the committee has accelerated procurement of strategic systems, pouring billions of dollars into weapons systems whose only purpose is to increase U.S. nuclear capability against the Soviet Union.

THE B-2 STRATEGIC BOMBER PROGRAM

Although I have been a supporter of the B-2 program, I have serious concerns about some of the problems we face with this expensive and complex system. We must take seriously the problem of concurrency in the B-2; the administration is preparing to buy most of the aircraft without first having adequate assurance that they will work as stated, designed or required. We are thus running the risk of repeating our mistake with the B-1B bomber in the case of the B-2. This would be not only unwise; it would contravene Defense Department policy and the law.

I am disturbed that more than two years after Congress enacted legislation that I initiated on improved warranties for the B-2 contract, the Air Force is buying B-2s without a proper contract at all. Instead, it has been buying the B-2s under a so-called letter contract, which does not include a negotiated final price or additional provisions like warranties. Consequently, for more than two years the B-2 program has proceeded without the improved warranties that are required by law.

Although we discuss the B-2 cost figures as though we knew them with some precision, this letter contract arrangement permits the manufacturer (Northrop) to ask for additional funding to keep building bombers without an agreed final price. We do not know precisely how much it is costing Northrop to build the current fleet of B-2 bombers. But you can be sure it is not less than we have been assuming.

To solve this problem, I offered an amendment that the committee passed requiring that no more funds be obligated for the B-2 until the Air Force has entered into a definitized contract for the procurement of B-2 aircraft authorized back in fiscal years 1989 and 1990. Additionally, that contract must include the improved warranty clauses required by law, as should future contracts, otherwise the taxpayer will be asked to pay for repairs to B-2 bombers that should have been built right the first time.

The committee narrowly defeated a proposal to add some $190 million to the B-2 program in the name of "preserving the option" to increase the procurement of aircraft by 16 over three years, thus completing the program in FY 1996 -- two years ahead of the current schedule and at a presumed savings of more than $2 billion. That proposal would have led to an unacceptable situation in which all aircraft would have been authorized before the IOT&E program has been completed, exactly the situation we suffered with the B-1B. If we learned any lesson from the bitter B-1 experience it should have been to proceed with extreme caution when concurrency is involved. We should strengthen our accepted "fly before you buy" strategy; we should come as close as possible to "complete the test before we buy the rest."

This is not just a matter of preference; it is the law. Title 10, U.S.C., section 2399 (a)(1) states this clearly: "The Secretary of Defense shall provide that a major defense acquisition program may not proceed beyond low-rate initial production until initial operational test and evaluation of the program is completed." If we obey the law we would not go beyond low-rate initial production until Fiscal Year 1997, because the IOT&E program will not be completed until at least the Fall of 1996 -- assuming there are no further delays in the IOT&E program. But the current plan puts us at full-rate production in FY 1995, and beyond low-rate initial production already in FY 1993. We are already exceeding the acquisition speed limit.

The General Accounting Office has done a thorough job of tracking B-2 concurrency and concludes that it has grown since 1985. In 1985 the plan was to authorize 59% of the total B-2 aircraft by the time the initial operational test and evaluation program was complete. That is already a high rate of concurrency under any circumstance, let alone with a radical new aircraft design and much untested technology. Today the comparable figure is 71%. Can we accept such high concurrency? Can we afford to increase B-2 procurement and production rates before we even know whether the aircraft will really work as advertised? The GAO does not think so and I agree.

The B-2 flight test program is just in its early stages: only about 6% of the flight test hours have been completed to date. So far, only the most basic and elemental aspects of the B-2's capabilities have been tested; that is the nature of initial testing. The Initial Operational Test and Evaluation program (IOT&E) has not even begun, and yet its schedule has already slipped several years. Using what appear to be unreasonably optimistic assumptions, the IOT&E program is expected to begin in 1992 and to be completed in August 1996. Given the trend of delays in production, delivery and flight tests, along with the radically new nature of this aircraft it is reasonable to expect that the majority of critical design and performance criteria will not be adequately tested and evaluated until or after 1996. It is simply too early to make such a large commitment to the B-2 now. The jury has not even been selected, much less returned a verdict.

The B-1B program was vastly less complicated than the B-2, but numerous and serious problems were discovered only far into the IOT&E program, when it was too late to correct the problems before they were built into most of the planes. Given its radical technology, the B-2 will probably have many more unforeseeable problems than the B-1. These will require time and money to correct, although the current IOT&E plan does not provide for such problems. There are problems already in manufacturing and problems with the first few aircraft that have been delivered. These already have led to delays in the flight test program and continue to do so. Such delays, which are expected to continue, increase concurrency unless the aircraft production schedule is restrained correspondingly. For example:

* Aircraft have been delivered late and incomplete. The first flight test aircraft (Air Vehicle-1, or AV-1) still required over 100,000 hours of unanticipated manufacturing work after it had been delivered. This considerable amount of work resulted in a delay of the flight test program by about half a year.

* Air Vehicles 1-3 have all been delivered late and AVs 4-6 also will be delivered late, thus delaying the IOT&E flight test program.

* Unexpected problems discovered during early flight tests have led the Air Force to conduct unplanned diagnostic testing on the first aircraft (AV-1). These tests will last about one year and will limit the availability of AV-1 for the flight test program.

* Cracks have been discovered behind the engines of the aircraft during flight tests. These require periodic inspection and repair, thus limiting further the availability of aircraft for flight testing.

* Some of the classified subsystems have also experienced concurrency problems that add to the overall risk of rapid production. According to the GAO, in the case of one classified subsystem costing more than $500 million the Air Force plans to commit to completely producing the subsystem before its laboratory testing is even completed.

These are just some of the examples of problems that have been discovered already, before the more difficult and critical testing even starts. There surely will be more problems discovered as the flight test program unfolds.

For all these reasons it is clear that we must be very cautious before increasing production of the B-2 bomber. It is too early to decide to start doubling B-2 production rates each year.

OTHER STRATEGIC SYSTEMS

The committee's funding and direction for the Strategic Defense Initiative is costly, misguided and threatening to strategic stability -- my views are detailed elsewhere in this report.

The bill continues research and development funding for two mobile ICBM systems, the Midgetman and the Rail Garrison MX, mandating the purchase of an expensive prototype train and launcher that is destined for the garage. The Air Force plans to mothball this system, and the committee correctly refused to fund one test of an MX missile from the rail garrison train. But it makes no sense to spend $245 million to continue developing the MX rail garrison system with no intention or hope of proving the system capable, when the Air Force and Congress have already decided that developing the system is undesirable.

The bill funds the SRAM-T missile and warhead, despite the lack of any reasonable prospect that any NATO nation will agree to deploy this new nuclear weapon on its soil. Other committees of Congress have recognized the SRAM-T as a missile of dubious mission without a home, and have eliminated funds for it. But the Armed Services Committee continues the SRAM-T program.

The committee spends $396 million to procured 12 additional MX test missiles that the Administration did not request. The Air Force has stated that it does not need additional test missiles to maintain high confidence in the operational capability of the MX deployed in Minuteman silos for the entirety of its planned lifetime.

The committee also doubles the Administration's requested procurement of Trident II (D-5) missiles, authorizing $1.207 billion to buy 49 missiles. There is no need to fund any more missiles than the administration requests this year.

The committee has added $52 million above the Administration's request for R&D on the New Production Reactor to produce tritium. The Department of Energy has not justified accelerating this program. Reductions under the START Treaty could make it possible to meet stockpile material requirements past the year 2000 without a new reactor coming on-line. DOE has testified that it will soon know the potential tritium production capability of the K- and L-reactors at Savannah River, and the remaining lifespan of those facilities currently under repair. That knowledge could further diminish the urgency of bringing an NPR on-line. The committee's NPR funding level puts this program on a pace that will be difficult to sustain over the next few years, when weapons facilities cleanup needs will also be climbing sharply.

Taken together, these decisions represent a commitment to an anachronistic force structure based on the outmoded assumptions of the Cold War. Continuing and in several cases accelerating these strategic nuclear systems commits us to billions of additional dollars in research, development and production funds in the coming years -- funding that is not sustainable under steadily declining defense budgets. The funding priorities of this bill do not place resources where they can make the greatest contribution to U.S. national security. Instead, the committee makes investments in some unnecessary hardware that could undermine security and stability.

Carl Levin

JOINT VIEWS -- SENATORS CARL LEVIN
AND EDWARD KENNEDY
July 19, 1991

STRATEGIC DEFENSE INITIATIVE

The Senate Armed Services Committee has approved a plan for an antiballistic missile system which would violate the ABM Treaty. This decision is a frontal attack on the successful path of arms control negotiations pursued by the U.S. and USSR for many years, a path which is leading us to wholesale reductions of the most dangerous weapons in the superpower arsenals through a START agreement. If the committee's action becomes the policy of this country, it could undermine arms control and drain the treasury, truly endangering national security.

The committee has called for the deployment of an anti-ballistic missile system which could include as many space-based sensors and ground-based interceptor sites as necessary for a continent-wide ballistic missile defense. This ABM system would begin with the deployment of a more limited system at Grand Forks, North Dakota, which it said will be in compliance with the ABM Treaty. But the committee went beyond that. It decided that deployment at Grand Forks should be the "initial site" in a system which would ultimately include "additional anti-ballistic missile sites...additional ground-based anti-ballistic missile interceptors...(and) space-based sensors for direct battle management." Multiple sites and space-based components would violate the ABM Treaty.

The ABM treaty is a contract with the Soviets. It has allowed us to avoid an arms race in space which would be expensive and destabilizing. Some of the authors of this proposal contend that it does not necessarily require scrapping the ABM Treaty. However, an amendment to specify that the goal of the committee was the deployment of an "ABM-Treaty compliant" system was rejected. Instead, subsection (a)(1) of the committee's language clearly and unmistakably places in the SDI architecture systems which would violate the ABM treaty -- space-based sensors and multiple ground-based sites.

The Soviets are less likely to agree to modify the ABM Treaty when they are confronted with a decision to develop prior to negotiations even beginning. More likely we will be seen as laying down the gauntlet and challenging the essential building block of arms control in the ABM Treaty -- Article I. That Article states in clear English: "Each Party undertakes not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided for in Article III of this Treaty." Article III allows a single ABM system deployment area with no more than 100 interceptor missiles.

The U.S. decided twenty years ago that it was not in our interest to deploy the one regional ballistic missile defense system permitted us by Article III of the ABM Treaty. If we commit to it now as an initial step toward a nationwide system, the limited ABM capability a Grand Forks system might provide would be more than offset by the instability it would lead to and the enormous expenditures that are then likely to result.

The committee plan goes so far as to specify an initial operational capability (IOC) of 1996 for the system at Grand Forks as an initial step toward a continent-wide defense. If the Grand Forks system is, in fact, treaty compliant, that one site alone would not provide a defense against limited ICBM strikes for the entire U.S. population: SDIO's own calculations show that only the middle-third of the U.S. would be covered, leaving the vast majority of the country out of range of the Ground Based Interceptors.

The committee's main rationale for its action is to protect the U.S. against accidental or unauthorized launches. This is a remote threat which can be countered in cheaper and much less destabilizing ways.

The proposed START agreement makes substantial reductions in the number of strategic nuclear delivery systems of both sides, producing some reduction in the threat of Soviet accidental or unauthorized launch. We could share with the Soviets the technology the U.S. uses to protect our nuclear weapons from misuse. And we could also consider a joint agreement to equip missiles with in-flight destruct mechanisms like those on space-launch vehicles and test missiles. All of these measures would reduce the threat without upsetting current stability.

The committee's second rationale is the proliferation of ballistic missiles. We should not underestimate the dangers posed by emerging missile threats from Third World nations, but these pose a greater threat to regional stability than to U.S. territory. The U.S. does not need to rush out and spend billions of dollars to deploy even a limited SDI system when there is no threat that a third world nation could launch a nuclear-equipped ICBM at the United States.

These nations and individual terrorists could more cheaply and easily deliver a nuclear weapon to U.S. soil by boat, civilian aircraft, or even luggage. No strategic defense system in the world will protect against those threats that may increase in the coming decades.

Instead of adopting the committee's plan, Congress should target resources to prevent missile proliferation. The committee bill properly makes a substantial investment in anti-tactical missile technologies. Sustaining that investment over several years could provide the United States and its allies with useful capabilities that could truly enhance regional security. Strengthening the Missile Technology Control Regime to stop the threat at its source is a more direct way to meet this challenge.

At the current time, no potentially hostile Third World nation, such as Libya or Iraq, is developing ballistic missiles with the range necessary to attack the United States. As a hedge against such a development, the United States should continue research and development of ground-based ABM defenses. Our objective should be to maintain the current situation in which we can develop and deploy such defenses faster than potential enemies can develop and deploy ICBMs capable of hitting the United States. But deployment of defenses as the Committee proposes is premature. It is not justified by any existing or imminent threat.

The Committee's proposal on space-based anti-ballistic missile programs, such as Brilliant Pebbles, is confused and contradictory. On one hand, the Committee has wisely reduced the Administration's funding request for Brilliant Pebbles and designated it as a "follow-on technology research program." On the other hand, the Committee requires a robust research and development plan for space-based anti-ballistic missile systems, emphasizing Brilliant Pebbles.

It is questionable whether it would ever be in the United States' interest to deploy Brilliant Pebbles or any other space-based interceptor. These weapons would have only a slight impact on the most immediate threat -- the use of short-range ballistic missiles against U.S. allies or forces deployed overseas. At the same time, space-based ABM deployments would carry enormous risks to strategic stability. Deployment of large numbers of space- based interceptors by either the United States or the Soviet Union could threaten the foundation of the other's deterrent capability. Given the minimal contribution of Brilliant Pebbles to likely threats and the potentially severe consequences for strategic stability, this program should be further downgraded in priority and funding.

The danger of the committee approving a plan that includes non-ABM Treaty compliant systems is its negative impact on strategic stability and U.S.-Soviet relations. At this historic moment in international cooperation, after a coalition has worked through the United Nations to repel aggression in the Persian Gulf, as the Senate prepares to ratify the CFE Treaty, and as the superpowers prepare to slash their nuclear arsenals through the START Treaty, it makes no sense to undermine the reliability of nuclear deterrence, the predictability of mutual and measured arms reductions, and the trust of superpower cooperation. Why should we take a step that is likely to provoke an undesirable Soviet response?

An announcement of U.S. intentions to proceed with deployment of an ABM system at Grand Forks, after rejecting that deployment two decades ago, might or might not have forced a response by the USSR. But by planning now to develop a non-compliant, multiple-site system and including that system in the SDI architecture, the committee position is likely to precipitate a Soviet response which is negative and could return us to the worst aspects of the Cold War.

The Soviets can respond by deploying cheap countermeasures, like decoys and chaff, or they can add additional missiles and warheads to their arsenal to overwhelm a U.S. ABM system. In fact, the U.S. has long-threatened a similar response if the Soviets developed greater anti-ballistic missile capabilities. Former Secretary of Defense Caspar Weinberger told President Reagan in 1985: "Even a probable Soviet territorial defense would require us to increase the number of our offensive forces and their ability to penetrate Soviet defenses to assure that our operational plans could be executed." If the Soviets respond as Weinberger said we would, they might end up withdrawing from the START Treaty just agreed to. Surely, that is not in the our interest or the world's.

The stated purpose of the committee, to guard against accidental Soviet launches and Third World ICBM threats, is not likely to satisfy the USSR. We should not expect Soviet leaders to accept U.S. reassurances about our benign intentions any more than we would accept their reassurances if the situation were reversed. The committee's SDI architecture for a multiple-site system which would violate the ABM Treaty could have significant capabilities against the Soviet nuclear arsenal, and we should expect that the Soviet Union will respond based on those capabilities, not on our reassurances of our intent.

Neither should the U.S. assume a positive Soviet response to the committee's invitation to negotiate amendments to, or elimination of, the ABM Treaty's most important limitations and restrictions. SDIO's own 1991 Report to Congress affirms that there has been no shift in the official Soviet position against any changes in the ABM Treaty that would allow deployment of defenses. The United States has never tabled any draft treaty at the Defense and Space Talks that explains in detail how a transition to defenses could be achieved in the mutual interest of both superpowers.

Such a transition will be complicated enough to design without precipitous actions like the committee's, which will will make it even more difficult. The U.S. has a lead in ABM interceptor technology, and a smaller territory to cover. The Soviet Union would perhaps require 10,000 interceptors to match an American deployment of 1,000 interceptors providing coverage of our homeland. A Treaty designed to provide parity in numbers or capability would therefore allow either a U.S. system ten times more capable than the Soviet system or a Soviet system ten times larger than the U.S. system. The last time the superpowers held negotiations on this issue, the current ABM Treaty was the result -- both sides concluded the only acceptable limits on ABM deployment were the most restrictive limits.

The committee ignores this fundamental hurdle for successful negotiations to change the ABM Treaty in mutually acceptable ways. By providing no roadmap for negotiations, the committee further signals an intention to develop for deployment, with or without Soviet agreement, multi-site and space-based ABM defenses that would violate the ABM Treaty.

The committee's proposal is a seamless web, with its initial strand, the Grand Forks system deployment, tightly woven together with systems that would violate the ABM Treaty. The committee approves this plan before any negotiations or consultations with the Soviet Union, absent any evidence of Soviet willingness to move down this path mutually, and without sufficient appreciation of the dangerous territory that lies down that path. As a result, the approval of a plan with non-compliant systems threatens to return us to the days of the Cold War, and thereby weaken the security of the United States.

Al Gore

ADDITIONAL VIEWS OF MR. GORE

The Committee has approved language relating to SDI which purportedly is a step toward consensus. Consensus, however, truly exists only when different points of view have been genuinely reconciled. Consensus brings into existence a new and consolidated majority view of what needs to be done. The Committee language is not a consensus in this sense of the word. It represents, instead, a lowest common denominator agreement on words that do not resolve, but rather conceal profound disagreement on substance.

We had many hours of discussion before a majority in the Committee agreed on the core language of the SDI amendment, as follows: "It is a goal of the United States to deploy an anti-ballistic missile system, including one or an adequate additional number of ABM sites and space-based sensors, capable of providing a highly effective defense of the United States against limited attacks of ballistic missiles."

In the course of the discussion it became abundantly clear how far apart members who support this formulation actually are. Some of them hope that deployment will stop at one site, with the ABM treaty intact. Others believe that one site is hopelessly inadequate. They believe and intend that this agreement will ultimately lead to a multi-site deployment which cannot be built unless the ABM Treaty is drastically changed or abrogated. Still others believe that even a multi-site ground based deployment is useful only as the prelude to deployment of space-based "brilliant pebbles" interceptors. The latter cannot even be developed--much less deployed--without violating the ABM Treaty.

It was said often during our debate, and will surely be emphasized later in debate on the floor of the Senate, that "all" the Committee has really agreed to do is authorize deployment by 1996 of a single, treaty-compliant anti-ballistic missile defense site. But that site is also explicitly described in the Committee's language as only an "initial step." As for the meaning of such terms in the Committee's statement of goals as "adequate additional number," "highly effective," and "limited attacks," there is no indication whatsoever in the text, and no basis for agreement among the members. Yet these terms are efforts to characterize the basic specifications of a major weapons system whose development and deployment Congress would be commissioning.

The Congress needs also to realize that if it sustains the Committee's language it will also be adopting a policy which declares the intention of the United States to totally revise the ABM Treaty, from first principles through the last technical detail -- and, failing that, to abrogate the treaty. The Committee language urges the President to "pursue immediately negotiations to amend the ABM Treaty..." The goals of that negotiation, as outlined by the Committee, are not narrow but potentially broad enough to encompass a very broad range of possible outcomes including at least the deployment of an extended, non-treaty compliant, ground-based system. And to give edge to this instruction, the Committee makes it clear that starting four years from now, and ending with the deployment of the first site in 1996, the U.S. might abrogate the ABM Treaty, unless the Soviets agree to change it to our liking.

Now if there were some compelling reason to abandon our present policies perhaps all of these flaws would be acceptable. But we are under no such compulsion. Our present lines of research can be pursued usefully for a number of years before they run up against limits in the ABM Treaty. No one is suggesting that the risk of an accidental or unauthorized launch from the Soviet Union is high. As for the proliferation of ballistic missiles among other countries, that is indeed a major problem: but for their neighbors who are within range of the kinds of missiles that are being developed; not for the United States.

We have seen that it is possible for the United States to defend locally against short range ballistic missiles. There is a true consensus in the Committee that these defenses -- so crucial during Desert Storm -- need to be pushed and deployed for use in remote theaters of combat. We have a true consensus that more capable space-based sensors can and should be developed, and that potential issues involving their characteristics and the ABM Treaty ought to be the subject of negotiations. We have a true consensus that Soviet countermeasures could render a treaty-compliant ABM system ineffective, and that we need an agreement that would preclude those countermeasures. These are the areas that should be our focus.

I am not unalterably opposed to anti-ballistic missile defenses. I am not a believer that the ABM Treaty must exist forever in its present form, or even at all. If I oppose ballistic missile defense and support the ABM Treaty, it is because of a reasoned conclusion valid in a given context. And my reasoning tells me that the Committee's consensus on defenses is both false and unnecessary. Therefore, I oppose it, although with regret that in so doing I must differ from colleagues for whom I have very deep respect.

ADDITIONAL VIEWS OF MESSRS. WARNER, THURMOND, COHEN, McCAIN, WALLOP, LOTT, COATS, MACK, AND SMITH ON THE MISSILE DEFENSE ACT OF 1991 AND OTHER ISSUES

Ballistic Missile Defenses and The Missile Defense Act of 1991

The Senate Armed Services Committee took an historic step on July 17, 1991, by endorsing the goal of deploying an anti-ballistic missile defense system to protect the American people in all fifty states, our forward-deployed and expeditionary forces overseas, and our friends and allies from ballistic missile attacks. We, the Republican Members of the committee, are pleased that a majority of our Democratic colleagues joined us in this truly bipartisan effort to forge a consensus to endorse this vital goal. The discussion which took place over some ten or more hours of debate in committee was truly significant. For those who either voted for or voted against the amendment, this debate was a credit to the committee, its Chairman, its Members, and the Senate as a whole. The amendment, initially proposed by the Ranking Republican Member and known as the Missile Defense Act of 1991, was ultimately adopted by a vote of 16 to 4.

When President Reagan announced the Strategic Defense Initiative (SDI) in March, 1983, he challenged America's scientists and engineers to provide our people with the necessary technology to defend them from ballistic missile attacks. During the eight years since President Reagan announced SDI, the creativity and tenacity of the scientific and engineering community has more than met this challenge. The investment in SDI technology has culminated in enormous breakthroughs in technology and provided Congress with the necessary technical information to afford Members of the committee with the assurance that highly effective missile defenses can be deployed to defend all Americans. Our investment has been well spent not only in proving the technology, but also for the contribution it has made to the civilian industrial base, as well as other defense applications. In short, this investment made it possible for the committee to confidently decide to move forward with deployment of defenses.

Recent events in the Persian Gulf were largely responsible for bringing to the fore the issue of whether this Nation should begin deployment of some type of ballistic missile defense this year. Iraqi use of SCUD missiles during Operation Desert Storm confronted the United States and the world with the specter of ballistic missile attack and its political and military implications. One of the most important lessons we learned from this war is that we cannot rely upon the ability to locate and destroy missiles before they are launched and that a threat of retaliation may not deter missile attack. In short, defenses against such attacks are necessary to save lives as well as to prevent disruption of military operations.

While Iraqi use of conventionally armed SCUD missiles against Israel and Saudi Arabia posed no major military threat to coalition forces or, in the case of Israel, to its national survival, it did threaten the lives of our troops and neighboring civilian populations and was enormously significant as a political, terrorist weapon. Armed with lethal chemical or nuclear warheads, as could be the case in the near future, these missiles could have caused devastating damage to civilians and military forces alike. There is little doubt, however, that the Patriot theater missile defense (TMD) system provided a degree of defense sufficient to permit Israel to forego retaliation against Iraq, which in turn contributed to sustaining the solidarity of the multinational coalition of forces in the Persian Gulf conflict.

In the future, ballistic missiles from a variety of sources, combined with weapons of mass destruction, will pose an increasing threat to U.S. and allied forces overseas, and to the United States itself. These systems will have not only substantial political impact but, most assuredly, military significance as well. The Director of Central Intelligence estimates that, by the end of the century, between fifteen and twenty developing countries will possess ballistic missile capabilities; at least six developing countries probably will have ballistic missiles with ranges up to 1,800 miles; and at least three of these countries may develop missiles with ranges up to 3,300 miles that could directly threaten the United States. Many of these countries are currently developing, or will soon have the ability to develop, nuclear, chemical, or biological weapons for possible delivery on ballistic missiles.

At the same time, we must not ignore the fact that the Soviet Union has presented, and will continue to present, the most capable ballistic missile threat to the United States. As the Chairman of the Joint Chiefs of Staff, General Colin Powell, stated in recent testimony to the committee: "...the Soviet Union remains the one country in the world with the means to destroy the United States in a single devastating attack." The Soviet ballistic missile threat to our land-based and in-port deterrent forces is more formidable today than in the mid-1980s, and the U.S. has not completed efforts, begun during the 1980s, to reduce the vulnerability of these forces.

Defending our deterrent forces against attack is an option that should be rapidly developed. In this regard, we should consider how a defense deployment would also complement a START agreement by hedging or safeguarding against both technological surprise and unexpected changes in the threat to which a reduced force would be more sensitive than a larger one.

Given the combination of emerging Third World ballistic missile threats and the continuing challenge of the fully modernized and highly lethal Soviet strategic nuclear force (the danger of which could be heightened by internal Soviet instability and unrest), we believe the question for the United States is not whether we should deploy effective theater and strategic missile defenses, but rather, how many, of what type, and how soon? The bill we are reporting, while providing a defense capability only against limited attacks, establishes a National goal of making those defenses highly effective. The safety and security of the American people, as well as the effectiveness of our deterrent, demand that we initiate such a program. Our Constitutional responsibility to provide for the common defense of our Nation requires it.

Highly effective defenses against limited strikes require multiple deployment sites in the United States. Not one of the authors of these views believes that deployment of 100 interceptors at one site is capable of defending all Americans. Technical data and physics strongly indicate that a single ABM Treaty-compliant deployment will not provide an effective capability to defend all of our citizens against the majority of limited strike scenarios. Such a system would only protect a small sector of the United States, leaving Americans on our coastlines and in Alaska and Hawaii vulnerable. The prospect of a new ground-based Treaty-compliant technology being developed in the future to protect all fifty states is highly unlikely. Therefore, we believe that negotiations to amend the ABM Treaty, a goal set forth in the amendment, must result in higher ceilings for interceptors and multiple-site deployments, as well as the opportunity to fully demonstrate space-based anti-ballistic missile systems. To this end, we endorse the assessment of the SDI Organization in their recent report to Congress with respect to the requirements for a ground-based only defense:

> It appears that six ground-based interceptor sites, including sites in Alaska and Hawaii, are necessary for near-100 percent coverage of the United States against the variety of threats. For very close-in SLBM attacks, it is possible that additional interceptor sites might be necessary. A deployment of several hundred ground-based interceptors per site would be necessary to provide protection against the full range of potential threats. Multiple shot opportunities per RV are necessary to provide the desired combined system probability of kill....Protection requires space-based tracking sensors such as Brilliant Eyes to cue and otherwise to support the ground-based interceptors and ground-based radars.

In this regard, the Missile Defense Act of 1991 offers the best hope, as an initial step, of forming a consensus for deployment of a ballistic missile defense. While we are willing to forego at this time the deployment of space-based interceptors in the initial phase of this limited defense architecture, it is not in the National interest to preclude its technology development for the future. Therefore, this amendment provides for robust funding of Brilliant Pebbles technology, endorses the requirement and commitment for such funding in the future, and currently limited on space-based interceptor technologies, review of the Brilliant Pebbles program by the Defense Science Board and JASONs identified a couple of technical challenges but no technical show-stoppers. Indeed, if funded as promised, such technology, if feasible, will be available in the not-too-distant future and will provide the option for deployment as the final layer to this architecture.

In the end, we believe space-based systems will provide the best hope for an effective means of countering ballistic missiles in the future. Our Nation must not be denied the right to determine if this is true. Therefore, the commitment contained in the amendment calling for continuing, robust funding for space-based interceptor technology efforts must be honored.

With respect to the future, we agree with the recent testimony of General Colin Powell, Chairman of the Joint Chiefs of Staff, before the Senate Armed Services Committee that given the robust and fully modernized Soviet strategic nuclear threat, the original Phase I mission requirement should remain valid. We support, therefore, the requirement set forth by General Powell for a Phase I-like defense as a long-term goal, adapted or restructured to fit future geopolitical conditions. Until then, we believe we have identified a basis for a consensus to pursue aggressively a path that culminates in a multiple-site defensive system which, at a minimum, provides for a capability to defend all Americans against limited ballistic missile strikes.

Restart of the Rocky Flats Plant

Section 3135 of this bill contains a provision that places two absolute vetos in the way of reopening the Rocky Flats Plant near Denver, Colorado.

The Secretary of Energy has repeatedly and forcefully insisted, to the committee and to the public, that, even though restart is necessary for national security, he will not permit the plant to restart until it can be done safely.

Nevertheless, there is intense local opposition to ever reopening the plant, based mostly on the plant's admitted failure, so far, to meet all the standards of excellent operation that the Secretary demands. The Secretary, and the Defense Nuclear Facilities Safety Board, have repeatedly stated that any standards that cannot be met by the date of restart must be compensated for by equivalent substitute procedures until the standards can be met. Local opponents of the plant, however, insist that the plant cannot be opened safely and is not needed.

This local opposition has led the committee to include section 3135, giving an absolute veto to the Nuclear Facilities Safety Board, the Defense Science Board, and the Nuclear Weapons Council. Thus, the reponsibility for safely opening the plant rests in Admiral Watkins, but the authority to open it rests in three separate groups totalling about sixty people.

It is ironic that if the issue were one of imminent danger to public health and safety, the law gives a veto power to the Safety Board, but the President can override that decision. In this provision, if it is not an issue of imminent danger, but an issue of DOE deciding how to implement its own standards, the Safety Board has an absolute veto. We fail to see the logic in this.

It seems to us that this is an unnecessary provision, à dangerous provision, and unwise. It would be far better to direct the Secretary to consider and respond to the recommendations of the Safety Board and to the views of the Defense Science Board and the Nuclear Weapons Council, but to restrict and limit any veto power only to questions of imminent threats to public health and safety.

Excessive Spending on Undefined Concepts

This bill contains authorizations for almost $500 million, not requested by the Administration but added by the Subcommittee on Defense Industry and Technology, which are primarily focused on expanding or creating programs dealing with critical technologies and manufacturing engineering and technology.

We do not necessarily disagree with the announced goals of many of these initiatives, which are to advance and expand the technology base and to improve the engineering and manufacturing capabilities of the Nation. However, we are concerned that we are using substantial amounts of scarce national defense resources to manage and finance initiatives which have virtually no definition and, in some cases, only tangential relationship to our national defense.

Examples of such initiatives lacking definition include $153 million for manufacturing technology, $170 million for technology manufacturing partnerships, $50 million for manufacturing extension programs, $50 million for critical technology application centers, $10 million for science and mathematics education in primary and secondary schools, $10 million for Japanese management training, and $10 million for Japanese/U.S. research cooperation.

Defense budgets are declining sharply. It will become increasingly difficult in the future to maintain levels of spending for defense which are necessary to sustain even the minimal military capabilities needed for our national security. Yet, each year we direct the Department of Defense to finance programs which are often only peripherally related to the Department's primary mission of defending the Nation. Indeed, we are making more and more of these programs permanent, thereby making continued and increased funding for these programs an expectation, if not an entitlement.

We are also concerned that we are directing that enormous sums be spent on programs for which the only plan for execution consists solely of hortatory language in the report accompanying the bill. We strongly recommend that, before we direct the Department of Defense to expend funds to accomplish a goal, we first obtain from the Department a detailed plan of how the funds would be expended. If the concepts recommended in the bill are sound, then surely these concepts can withstand the oversight that is possible only after review of the plans to implement those concepts.

The taxpayers have a right to expect that we spend defense resources wisely. They also have a right to expect that, when we authorize spending of defense resources, we know how they are being spent. We do not know the details of how nearly one-half billion dollars authorized in this bill will be spent. The taxpayers deserve better.

John Warner
John W. Warner (R-VA)

Strom Thurmond
Strom Thurmond (R-SC)

William Cohen (R-ME)

John McCain
John McCain (R-AZ)

Malcolm Wallop
Malcolm Wallop (R-WY)

Trent Lott
Trent Lott (R-MS)

Dan Coats
Dan Coats (R-IN)

Connie Mack
Connie Mack (R-FL)

Bob Smith
Bob Smith (R-NH)

William S. Cohen

Additional Views of Senator William S. Cohen

The bill reported out by the Committee provides $2.456 billion for the procurement of four B-2 aircraft in Fiscal Year 1992 (FY-92) and $455 million in advance procurement for seven B-2 aircraft to be procured in FY-93. I oppose this decision and regret that the Committee defeated, 11-8, an amendment I offered to delete these funds and terminate production of any additional B-2 aircraft. At the same time, I am pleased that twice as many Committee members supported termination of the B-2 as was the case last year.

Moreover, the Committee adopted an amendment I offered to delete a $191 million increase above the Administration's B-2 procurement request that had been approved by the Strategic Forces and Nuclear Deterrence Subcommittee. This increase had been intended to initiate a significant acceleration of the production of the B-2. In particular, the Administration's proposal to procure 7 B-2 aircraft in FY-93 and 11 in FY-94 and subsequent years would have been changed to 8 in FY-93 and 16 in FY-94 and subsequent years. While this proposal would have required "only" an additional $191 million in this year's bill above the Administration's request, it would require nearly an additional $2 billion in FY-93 above the $3.145 billion called for in the Administration's plan. Clearly, accelerating the B-2 production plan would have been unwise given the repeated delays in the B-2 program, the minimal amount of testing that has been conducted to date, and the fact that the Air Force has yet to sign a definitized contract for any of the B-2 aircraft authorized in the last three years.

John McCain

SETTING THE RIGHT PRIORITIES FOR THE 1990'S:

SHAPING THE FY1992 DEFENSE BUDGET TO MEET AMERICA'S CHANGING STRATEGIC NEEDS

Supplemental Views of
Senator John McCain

July 18, 1991

The U.S. must make important changes in its military posture. It not only must adapt its forces to meet the needs of the Post-Cold War era, it must do everything possible to reduce its defense budget and the strain that defense places on its economy. The United States cannot hope to sustain its role as a world power if it does not reduce its budget deficit, and attack its persistent problems in trade and productivity.

This is why the current Department of Defense Future Year Defense Plan calls for steady cuts in real defense spending, with a 1% cut in real spending in FY1992, and cuts of 3-4% annually in the following years. If all current budget plans proceed as scheduled, our defense spending will drop by 13% between FY1991 and FY1996, and 32% between FY1985 and FY1996. Even if no further spending cuts occur, the Bush Administration's current plans call for a 25% cut in our military forces.

If we are to have the forces we need, we must eliminate the unnecessary forces as quickly as possible -- freeing resources to keep funding key elements of our force structure. We must take risks in some areas to have adequate forces in others.

We must be prepared to shift away from many of the roles and missions of the Cold War era and focus our capabilities on power projection: capabilities that are necessary to deal with regional aggressors, proliferation, and other challenges to world peace that emerge from the continued instability in the Third World. These power projection missions require strong, fully combat ready, and rapidly deployable forces, and they will consume most of the defense resources we will have available in the 1990s.

Finding the Resources To Maintain the Power Projection Forces We Need

The practical problem is to fund these capabilities in spite of the cuts taking place in defense spending and military manpower. This means cutting our forces for a strategic nuclear conflict or war in Europe to the minimum level compatible with insuring against a sudden reversal of the recent trends in the Soviet Union. It means realizing that we are not going to fight a major battle for sea control and naval resupply in either the Atlantic or Pacific, and cutting those active forces whose major contingency mission was the reinforcement of NATO.

These are not risk free cuts and we must take care not to eliminate whole mission areas. We must preserve enough strategic forces and capabilities to deter any risk of nuclear war and maintain some capabilities for a European conflict. We must realize, however, that every dollar spent on such forces weakens our capabilities for power projection.

The Role of Allied Nations

The end of the Cold War also means that the defense of Europe should become a European problem. Our wealthier European, Asian, and Gulf allies must share the financial burden of executing those power projection missions that serve their regional and global interests. If they do not play an active military role, they must use their wealth to aid those who do, and to match military action with the economic and military assistance which is often a vital supplement to, or substitute for, the use of military force.

The Role of Military Assistance

Like burden-sharing, military assistance is a critical "force multiplier" in an era where the U.S. must cut its own forces and capabilities. The U.S. must now act in conjunction with regional allies, and its allies must be strong enough to deter or counter low to mid-intensity threats wherever possible. This does not mean that the U.S. should encourage massive arms transfers to its allies nor see such arms transfers as the solution to regional arms races. It does mean that the U.S. should do everything possible to encourage regional solutions to regional problems, and should limit its forward deployed and over-the-horizon forces to roles that its allies cannot assume.

The Role of Arms Control

Wherever possible, we must use arms control as a substitute for arms, and we must reexamine how arms sales and military assistance can act as a substitute for U.S. military power. START and CFE already are examples of the kind of agreements that both help achieve military stability and deter war, and that offer both the U.S. and USSR the ability to substantially reduce defense spending in areas that no longer have a major priority for either nation. Both nations should also agree on reductions in other forces whose primary purpose dates back to the Cold War.

BUYING THE RIGHT STRATEGIC FORCES

Current plans call for a strategic force package that will make significant cuts in U.S. strategic programs, but retain the triad, be consistent with arms control priorities, eliminate destabilizing systems, and pursue strategic defense. The U.S. must not let its nuclear capabilities drop to the point where they might fail to deter any potential opponent. We must not bet national survival on any estimate of the political intentions of the USSR and ignore how quickly the current pattern of stability could change in a crisis.

Taking a More Aggressive Stance on START

U.S. and Soviet relations have probably evolved to a point where more farsighted objectives could result in agreements on post-START force levels that sharply reduce the escalatory and first strike incentives for either side. Additionally, there is no security objective that dictates that the strategic arms control talks must remain limited to the present START proposal. We should test the limits of our improved relations with the USSR to determine whether we can move immediately to much deeper and more stable arms reductions that would sharply reduce the need for strategic modernization.

Reducing Investment in Strategic Force Modernization

Even without START, we are investing more in strategic nuclear force modernization than is justified. U.S. strategic modernization efforts are still being driven by strategic force employment plans heavily oriented towards maximum target coverage. We also need to sharply reconsider the current emphasis on the triad. The driving irony behind our current strategic force plans is that they are built around attacking a given percentage of targets in the SIOP, rather than an explicit set of judgments about what is necessary to deter and terminate nuclear conflict.

Cutting Expenditure on the B-2 and B-1B

The Air Force is currently requesting over $100 million a year in program acquisition costs to correct its original mismanagement of the B-1B program and try to give it an effective penetration capability, and $4 billion to $5 billion a year for the B-2. We should cease committing significant resources to the penetrating bomber and concentrate on using existing bombers as cruise missile carriers to provide a hedge against unanticipated vulnerabilities in other elements of the Triad, and the failure of future arms control negotiations. In practice, this means halting the further upgrading of the B-1B for penetrating missions and terminating procurement of the B-2 as soon as possible.

ICBM Modernization

We need to make a firm choice this year between the Peacekeeper and SICBM, and the cost trends in the SICBM program are disturbing. Maintaining the rail-garrison option for the Peacekeeper, and canceling the SICBM program could save potentially several hundred million dollars a year. We also should be flexible in considering trade-offs between U.S. and Soviet forces designed to reduce the incentives for either a first strike or escalatory strikes by either side.

Continue the Trident Modernization Program

The Bush Administration has taken the prudent risk of capping the Trident construction program at 18 ships and of creating force plans that will reduce the number of SSBNs from 34 submarines to 18 submarines during the 1990's. This allows procurement expenditures for Trident submarines to drop from $1.4 billion in FY1991 to $45 million in FY1993, and allows substantial savings in future years. Proceeding with the present plan for procurement of the Trident D-5 missile also seems prudent, particularly if the B-2 is cancelled and ICBM modernization is left at token levels.

Focus on the Risk of Proliferation for SDI

President Bush and Secretary Cheney have taken an important step this year in refocusing the SDI program on the problem of proliferation and limited strikes against the U.S. The new Global Protection Against Limited Strikes (GPALS) program is well worth funding, and reflects the major changes taking place in the threat.

We need a strong research and development program in SDI. This will preserve the long term option of deploying a limited system that can act as a hedge against any sudden shift in Soviet attitudes and force modernization, and, more importantly, against the risk that some hostile Third World nation may develop long range missiles that can reach the U.S.

RESTRUCTURING OUR FORCES FOR NATO AND THE DEFENSE OF EUROPE

The Bush Administration has already proposed major reductions in the U.S. forces in Europe and for the reinforcement of NATO. Last year, it indicated that a signed CFE agreement might allow the U.S. to cut more active divisions and five air wings from its force structure. This year, it has proposed force levels for the mid-1990s of:

o A single corps composed of two active army divisions in Europe, plus other European forces consisting of 3.4 fighter wings, 1 carrier battle group, one Marine Corps Amphibious Ready Group, and an MPS ship. Total manning in Europe would drop from over 300,000 men to less than 200,000.

o An undefined "Persian Gulf Presence".

o A package of forces in CONUS for Atlantic and European missions consisting of 4 active, 6 reserve, and 2 Cadre Army divisions; 2 active and 11 reserve fighter wings; 5 carrier battle groups plus support forces; and two active Marine Expeditionary Brigades (MEBs) plus one reserve MEB.

o Out of these forces, two to three carrier battle groups would maintain a forward presence in the Mediterranean, Red Sea and Persian Gulf. The Marine Amphibious Ready Group will maintain a permanent but rotational presence in the Mediterranean.

While there is nothing inherently wrong with this concept, it ignores the need to clarify distinctions between those forces whose primary mission is the defense of the Central Region of Europe, and those forces whose mission is power projection in nearly half the world. This "Atlantic Forces" package must cover the entire Atlantic area, including much of Latin America and Africa, the Mediterranean, the Middle East, and the Gulf.

U.S. Forces in Europe: Creating Dual Mission Forces at an Affordable Cost

U.S. forces deployed in Europe must not be seen as being assigned or earmarked on a full time basis to NATO and SACEUR. They must be treated as contingency forces that the U.S. can use for power projection as long as the Soviet threat remains low. It must be emphasized to our German allies that they must increase their burden-sharing in terms of the costs they pay for the U.S. forces that remain in Europe. It also must be emphasized to other allies that our forward deployed tactical air, carrier, and Marine Corps forces are power projection forces and we must have the freedom to deploy and sustain them for such missions.

Ending The Reconstitution Mission

It is prudent to have power projection forces that can reinforce Central Europe, as well as meet contingency needs for forces that can fight in high and medium intensity combat in other parts of the world. Limiting the reinforcement and reconstitution mission in the mid to late 1990's to those forces needed for global power projection would free substantial resources to fund the modernization, readiness, and forward deployed forces we really need. It would fund the strategic lift and sustainability the Army needs for quick reaction deployments and allow the Marine Corps to remain at its present strength.

Accordingly, the following changes should take place in the reserve forces package:

o Consideration should be given to deploying only two active brigades per division deployed in Europe, with one active round out brigade in CONUS.

o The 4 active Army divisions should be maintained as global contingency forces and not tailored for the defense of Europe, perhaps shifting one of these divisions to reserve status by the late 1990s.

o The mix of 2 active and 11 reserve Air Force fighter squadrons now planned in CONUS should be carefully reexamined to stress power projection.

o Plans to deploy 5 carrier battle groups, plus support ships, should be reexamined to ensure that five carriers with the proper mix of aircraft can be deployed for power projection.

o It may be possible to make significant long term savings in those elements of naval forces whose primary mission is the protection of the Atlantic LOCs against a steadily less credible threat. This could allow significant reprogramming of resources away from ASW and SSNs to power projection forces.

o The Marine Corps must be kept at one fully combat ready MEF, with suitable lift and prepositioning. The Marine Corps is a fully funded power projection force in being, and unlike some Army divisions, it is already tailored for the key missions of the 1990s and beyond.

o The U.S. must restructure its sustainability, support, and strategic lift to focus on rapid power projection. It must fund the C-17, suitable Army and Marine Corps maritime prepositioning, and the packages of munitions and supplies necessary to fight in the Gulf and other parts of the Third World.

Restructure Land Force Procurements for NATO

The U.S. should restructure its land force procurement plans to de-emphasize high cost-high technology-high weight systems. It should emphasize lower cost and rapidly deployable forces and reduce its investment in high cost strike, C3I, and sensor systems tailored to FOFA and the air-land battle. The U.S. should also emphasize self-deployable systems like the AH-64. The existing concept of U.S. Army divisions does not seem adequate for the far more uncertain conditions NATO is certain to face in the near future.

Changes in Aircraft Modernization Plans

Both the Air Force and the Navy should adjust their aircraft modernization and procurement plans to ensure that they are affordable, and that sufficient funds exist to buy adequate munitions and special purpose aircraft. The Air Force and Navy also should avoid mortgaging their aircraft modernization plans to unrealistically high annual rates of production and should avoid cutting off the modernization and rebuilding of existing tactical aircraft to fund new aircraft. The current emphasis on high annual production rates for new aircraft does not allow for effective war fighting.

Increased Reliance on Strategic Warning and Changes in Plans for Strategic Lift

The U.S. should base its future reinforcement plans for Europe on a minimum of 21-45 days of strategic warning, while accepting the fact it may have only a few days of warning -- if any -- of major contingency developments in the Gulf and other parts of the Third World. Its focus on warning should shift from a Soviet-oriented system to one dealing with the mission needs and political complexities of contingencies in the Third World.

The U.S. faces some critical choices in regard to prepositioning and strategic lift. In the case of prepositioning, the U.S. needs to sharply deemphasize it in Europe, and stress instead the kind of maritime prepositioning needed for power projection. Serious consideration should be given to prepositioning Army heavy equipment on ships on the Atlantic coast so that the U.S. can rapidly deploy at least two heavy divisions for medium to high intensity conflicts. As for strategic lift, the U.S. must procure the C-17. The U.S. also should procure more fast deployment logistic (FDL) ships and consider shifting a selected portion of the ready reserve fleet to U.S. Navy control with cadre crews.

Changes in Theater Nuclear Modernization Plans and SNF Policy

The Bush Administration has already recognized that the U.S. must fundamentally alter its approach to theater nuclear modernization and SNF negotiations. In terms of forces deployed in Europe, the U.S. should pursue SNF negotiations seeking reductions similar to those achieved in INF, and establish a goal of transferring all responsibility for nuclear forces deployed in Europe to France and Britain.

STRATEGY FOR GLOBAL STABILITY AND POWER PROJECTION

The U.S. has global interests that can be affected by regional disputes whether it wishes it or not. The U.S. is also the only power capable of focusing international efforts on a global basis toward a common goal.

Current Mission and Force Plans

The Bush Administration force plans for FY1992-FY1996 call for two major mission packages of power projection forces, in addition to those included in Atlantic Forces. These mission packages include "Pacific Forces" and "Contingency Forces":

o Pacific Forces include forces whose primary mission is the defense of Northeast Asia and the Pacific Rim, including Southeast Asia.

o Contingency Forces include forces in the U.S. to provide global crisis and contingency response capability across the spectrum of conflict from counterinsurgency to major conventional conflict.

Power Projection and "Pacific Forces"

Like "Atlantic Forces", the "Pacific Forces" and "Contingency Forces" packages are ambiguous in mission and force structure. This ambiguity does not affect the need for the forces projected in the current Bush Administration strategy and FY1992-FY1996 force plans. The defense of Korea and Northeast Asia does not involve the same radical changes in the strategic situation, and the need for U.S. forces, as the situation in Europe and NATO. If anything, the threat posed by North Korea continues to grow.

The situation in Japan, however, is different. The threat that the USSR and other Northeast Asian states pose to Japan is diminishing. Japan increasingly has the capability to provide for its own defense in most contingencies. U.S. forces in Japan, however, should have a dual mission and be seen as power projection forces when required for regional contingencies.

The Need for Change in "Contingency Forces"

The units now included in the Contingency Forces package have not yet been clearly defined by the Bush Administration. There is no question that the Army's airborne and air assault divisions have played critical roles in power projection missions in the past, and will do so again. Keeping these forces fully ready and combat effective thus has a high priority.

It is less clear that this is true of the Air Force units assigned to the Contingency Forces, although so little detail is as yet available on what these forces are that there is no way to be certain. The same is true of the unspecified Navy and Marine Corps forces that are part of this package. As for the airlift and sealift forces in the Contingency Forces, it has already been suggested that these are inadequate, and that many of the previously suggested reductions should free funds to help pay for the improvements required.

Preserving the Power Projection Capabilities of the U.S. Army

The U.S. Army will suffer more cuts than any other service as part of the present FY1992-FY1996 force plan. While all the details of its manpower plans have not been released, what is clearly essential is that any future force cuts come from the four Europe-oriented heavy reserve divisions and the six light divisions that lack the firepower to be valuable in most future contingencies rather than from the Army forces oriented toward power projection.

An effective power projection strategy must be founded on a mix in which the U.S. Army provides the bulk of U.S. capability for sustained medium and high intensity combat and reinforcement, as well as Special Forces. What is also needed, however, is a mix of 3-5 highly mobile heavy divisions in CONUS and Europe that can deploy within a few weeks to several months and provide the armor, artillery, and heavy weapons necessary for medium and high intensity combat anywhere in the world. These forces will need suitable training, equipment, sustainability, and strategic lift. They will have to be combat ready, although not necessarily at levels of 100% and be able to draw on reserves for combat and service support.

What is lacking is the fast sealift and maritime prepositioning and the detailed programming priorities necessary to convert these forces from NATO-oriented to power projection forces. Such changes should be accomplished over the FY1992-FY1996 period.

Preserving the Power Projection Capabilities of the U.S. Air Force

The Bush Administration plans to cut the total number of Air Force tactical fighter wings from 36 to 26 wings, with active wings being cut from 24 to 16 wings. This is a bare minimum to provide power projection capability while providing a prudent reserve for other contingencies. The U.S. must not risk cutting this strength further, or its mix of Navy and Marine Corps aviation.

There is a high risk, however, that such cuts will occur because the Air Force is seeking to convert to the Advanced Technology Fighter and a new multi-role fighter at a rate that will seriously strain its budget. Problems could still emerge in funding a fully deployable active force of 16 wings with the high readiness and power projection capability required.

If the U.S. Air Force slows the pace of aircraft and weapons modernization, as has been suggested earlier, and makes the proper cuts in strategic forces, it should be able to fund the mix of active and reserve tactical air forces it will need for the 1990s. The Air Force also should have sufficient resources for its airlift and surveillance and reconnaissance missions.

Maintaining the Active Strength of the U.S. Marine Corps

Some reductions in Marine Corps manpower strength are possible by cutting smaller units, but the Bush Administration now plans cuts that are too large. The U.S. cannot achieve meaningful economies by cutting fully ready power projection forces, particularly since they already have seaborne prepositioning and sustainment. If the U.S. should destroy this existing capability, it will almost certainly find that it will have to be recreated later at greater cost.

Further, the Marine Corps must be given all the contingency capabilities needed for power projection in medium intensity, as well as low intensity combat, and mission capabilities with added sustainability and combat capability that is less tied to amphibious operations. The present structure of the Corps has created a force that is too light for many of the power projection missions of the 1990s. The U.S. cannot afford to limit one of its most critical power projection capabilities in this manner.

The Marine Corps must have the strategic and theater lift it needs to be effective, and the artillery and tanks to sustain itself in medium and high intensity combat. In the case of strategic and tactical lift, this requires a comprehensive re-examination of current U.S. amphibious lift plans which will now severely weaken the Corps' contingency capabilities after the mid 1990s. It also requires the development of an integrated long term plan that ties together amphibious lift, tactical airlift, maritime prepositioning, and overall sustainability.

The Corps also needs enough firepower and maneuver capability to deal with the armored forces of the best equipped developing nations. Marine forces are now too lean to provide its forces with the modern tanks and self-propelled artillery that are vital to effective future operations.

Finally, we must firmly accept the fact that the basic rationale for the Marine Corps is that its forces already exist, are fully funded and ready, and provide a vital strategic capability. Combining the Army and Marines, or "rationalizing" them in some other fashion would not save money or improve U.S. power projection capabilities, and would almost certainly leave a lasting legacy of problems in morale.

The Role of Seapower and the Carrier Battle Group

The U.S. has already cut back to 14 carrier battle groups and two surface action groups centered around our two remaining battleships. It now plans to drop to 12 carrier battle groups and 13 carrier air wings, and eliminate all its surface action groups by 1991.

The Gulf War showed that a battleship's mix of gun and cruise missile capability makes it an ideal partner for the carrier. While it is impossible to characterize our uses of seapower in terms of simple categories or patterns, the vast majority of our naval deployments provid the rapid reaction capability necessary to prevent a crisis from escalating.

While it is impossible to characterize our uses of sea power in terms of simple categories or patterns, the vast majority of our naval deployments provided the kind of rapid reaction capability necessary to keep a crisis from escalating. We have used force to prevent war, to limit escalation; or to protect American citizens, friends, and allies.

Cuts in Other Areas of Surface Fleet Strength and Changes in Naval Air Modernization

We should, however, be willing to adjust the strength of our supporting surface fleet to deal with a less sophisticated threat than the Soviet Navy. The U.S. does not need the capability for a "forward strategy" that would attack the Soviet fleet in its bastions in the North Atlantic and Pacific. The U.S. can afford to unilaterally adjust its naval force posture and exercise activity to convince the Soviet Union that the primary mission of the U.S. Navy is power projection and sea control and not to directly threaten the Soviet homeland. By cutting fleet strength, and converting added ships to the naval reserves, the U.S. can more readily deal with increasingly sophisticated Third World threats and still cut costs.

The end result would be smaller battle groups with a focus on modernization, rather than maintaining force strength. The 600 ship navy never had strategic justification and wasted precious U.S. power projection assets. By cutting fleet strength, and converting added ships to the naval reserves, the U.S. can provide the modern escorts, mine warfare ships, and other "coastal combat" capabilities needed to deal with increasingly sophisticated Third World threats and still cut costs.

Changes in U.S. Strategic Lift

The U.S. needs sufficient lift to deploy heavy Army divisions for a high intensity conflict in the Third World, suitable lift for its tactical air forces, and the amphibious lift and prepositioning ships needed for the Marine Corps. The U.S. now has an aging fleet of air transport aircraft, and one key aircraft -- the C-141 -- may have to retire earlier than planned. This makes procurement of the C-141 a critical priority for power projection. The U.S. must create a new affordable mix of strategic and tactical lift that ensures the C-17 will be procured on schedule, and that sufficient fast sealift ships are available to rapidly move several Army divisions.

The FY1993 budget submission should have a clear request for funding and operating the additional fast sealift ships needed for power projection. The U.S. military, however, cannot and should not subsidize the U.S. commercial fleet and ship building industry. The sealift we need should be procured in the most cost-effective manner possible.

Creating a New Total Force Concept to Balance Active and Reserve Forces

In spite of recent reports by the Department of Defense, there is no unifying total force concept for active and reserve force strength, manning levels, training readiness, lift and sustainability. Each of these areas tends to be addressed separately, and "war stoppers" often exist in one or more areas while the others are fully funded. These problems are compounded by Cold War command structures. We need to re-examine present command structures and the roles and missions of these commands.

Using the Advantages of Foreign Deployment While Minimizing Costs

The U.S. must adopt a clear strategy towards foreign deployment and basing (with its attendant reliance on allies), burdensharing, and military assistance. Both we and our allies need to recognize that we cannot base our strategy and force structure on a "go it alone" approach to power projection. The U.S. must limit its commitments and costs by steadily integrating its power projection concepts with those of regional friends and allies. The U.S. then may make reductions in its present overseas strength, even in major threat areas like Northeast Asia. We must recognize, however, that these forward deployed forces offer the maximum degree of deterrence and ability to deal with a crisis or conflict early enough to minimize the required use of force.

FMS, Burdensharing, and Partnership With Friends and Allies

It is clear that we need to take a hard look at the three tools that are essential to our power projection strategy that also have a major impact on defense expenditures:

o We need to restructure our FMS effort to strengthen the capability of key allies when this proves cheaper than providing U.S. power projection capabilities.

o We need an integrated approach to burdensharing, stressing the budget costs of deploying U.S. forces for the defense of relatively wealthy states like Japan and South Korea.

o We need to accept the risk of partnership with our friends and allies to create local deterrents that deal with most LIC and MIC contingencies.

Savings in Support and Infrastructure

Too much of our current debate over defense spending focuses on the most visible units and ignores the fact that behind our combat forces is a massive structure of other elements tailored for the contingency of a massive conventional war in Europe. It is essential that we restructure our reserve and National Guard forces to provide the kind of reinforcement and sustainability we need for regional contingencies and to support power projection.

TECHNOLOGY, PROCUREMENT, AND DEFENSE INDUSTRIAL POLICY

Implementing the preceding plans will ease some of the growing problems in our defense industrial base in the areas where we need it most. While the Bush Administration has indicated that it will address these issues in its FY1992 defense budget request, its plans remain vague and poorly defined.

What clearly is needed is a focus on actual procurement needs and the production and R&D base necessary to meet them. We need to preserve critical production capabilities or we will never be able to make effective use of critical technologies. We also need to know when we must turn to production methods and technologies available in the civil sector because we can no longer afford to maintain a defense industrial base that is decoupled from the civil economy.

CREATING THE POWER PROJECTION STRATEGY AND FORCE MIX WE NEED FOR THE 1990S

It is always tempting in a review of strategic priorities to assign specific costs and savings to specific actions. In practice, however, programming is both more demanding and more flexible.It does not take radical changes to the strategic and force planning concepts presented by the Bush Administration to develop an effective power projection strategy.

The preceding power projection strategy will free the U.S. economy to deal with the growing challenge of competition in trade and technology, and the need to forge a strong base for international economic partnership and interdependence. Such a strategy will preserve and strengthen the forms of U.S. military power that secure that interdependence and encourage it.

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ADDITIONAL VIEW OF MR. MACK ON F-14 FUNDING

I was disappointed that the Senate Armed Services Committee decided not to follow the House of Representatives in authorizing the remanufacture of older-model F-14 A and B aircraft to the high-powered, digital F-14D.

The Tomcat has served America admirably as the Navy's air-superiority fighter. The quality of its initial design and manufacture has made it world-famous, and the new engine and avionics upgrades put it in a class by itself. Nobody, inside the Navy or out, has questioned the F-14's capabilities. Discussions of eventually moving to alternative aircraft have centered on the issue of price rather than function. I find this remarkably short-sighted, especially given the marginal cost differences being proffered, and the assumptions upon which those savings estimates are based.

Furthermore, as it is unclear how the Navy will adequately fill the gap left by A-6 retirements before the promised A-X comes on line, great flexibility will be required to meet that vital challenge through the next century. Rather than spending billions of scarce dollars to develop an essentially new aircraft to fill the void, the F-14's present range, payload and two-seat configuration make it an excellent choice for that mission.

All in all, we need the F-14 and will continue to need it in the future. To send the brave men who fly the Tomcat into combat with less than the best version available is unacceptable. I will fight to preserve this invaluable asset of America's armed forces.

SUPPLEMENTAL ADDITIONAL VIEWS OF SENATOR BOB SMITH CONCERNING THE STRATEGIC DEFENSE INITIATIVE

IN ADDITION TO THE PREVIOUSLY EXPRESSED VIEWS WHICH I SHARE WITH MY REPUBLICAN COLLEAGUES CONCERNING THE STRATEGIC DEFENSE INITIATIVE, I AM COMPELLED TO ELABORATE FURTHER ON THE MISSILE DEFENSE ACT OF 1991. ALTHOUGH I VOTED IN FAVOR OF THIS LEGISLATION, I DID SO RELUCTANTLY AND WITH STRONG RESERVATIONS.

THE MISSILE DEFENSE LEGISLATION CITES AS A GOAL THE DEPLOYMENT OF AN ABM SYSTEM, INCLUDING ONE OR AN ADEQUATE ADDITIONAL NUMBER OF ABM SITES AND SPACE-BASED SENSORS, WHICH WOULD EFFECTIVELY DEFEND THE UNITED STATES, OUR FORWARD-DEPLOYED AND EXPEDITIONARY FORCES, AND OUR FRIENDS AND ALLIES AGAINST LIMITED BALLISTIC MISSILE ATTACKS. CERTAINLY, THIS IS A GOAL WHICH WE ALL SHARE. HOWEVER, I AM NOT CONVINCED THAT THE IMPLEMENTATION INITIATIVES INCLUDED IN THE BILL ARE SUFFICIENT TO ACHIEVE THIS OBJECTIVE.

FOR INSTANCE, THE LEGISLATION INCLUDES NO SPECIFIC COMMITMENT TO THE DEPLOYMENT OF BRILLIANT PEBBLES IN THE INITIAL ABM ARCHITECTURE. ALTHOUGH THE BILL PROVIDES FOR ROBUST RESEARCH AND DEVELOPMENT FUNDING, SPACE BASED INTERCEPTORS ARE RELEGATED TO A FOLLOW-ON TECHNOLOGY. IN MY VIEW, THIS EXCLUSION IS SHORT-SIGHTED AND DANGEROUS.

BRILLIANT PEBBLES PROVIDE CONTINUOUS GLOBAL COVERAGE AND THE CAPABILITY TO INTERCEPT HOSTILE MISSILES DURING BOOST AND POST-BOOST PHASE, WHEN THEY ARE SLOWEST, BRIGHTEST, AND MOST VULNERABLE. THIS MULTIPLE SHOT ENGAGEMENT CAPABILITY DURING EARLY FLIGHT AFFORDS THE INVALUABLE OPPORTUNITY TO INTERCEPT MIRVed MISSILES PRIOR TO WARHEAD RELEASE, AND FAR AWAY FROM OUR NATIONAL BORDERS. MOREOVER, INTERCEPTING MISSILES OUTSIDE THE ATMOSPHERE AVOIDS POSSIBLE FALLOUT EFFECTS OF CHEMICAL, BIOLOGICAL, OR NUCLEAR PAYLOADS. ADDITIONALLY, BRILLIANT PEBBLES WOULD PROTECT U.S. FORCES IN NEW THEATERS BEFORE THEATER DEFENSES CAN BE ESTABLISHED, AND GUARD AGAINST SHORT-RANGE, SEABORNE BALLISTIC MISSILE ATTACK AGAINST THE U.S. COASTLINE. IN SHORT, SPACE-BASED DEFENSES SUBSTANTIALLY ENHANCE ABM SYSTEM EFFECTIVENESS AND SHOULD BE INCLUDED IN THE ARCHITECTURE.

I AM ALSO CONCERNED WITH THE COMMITTEE'S REDUCTION TO THE PRESIDENT'S FY92 BUDGET REQUEST. THE BILL SLASHES $550 MILLION FROM THE SDI PROGRAM AT THE VERY TIME THAT THE COMMITTEE IS ENDORSING, AND IN SOME CASES ACCELERATING, DEVELOPMENT AND DEPLOYMENT OF A VARIETY OF ABM SYSTEMS AND COMPONENTS. THIS HARDLY REPRESENTS AN APPROPRIATE FISCAL COMMITMENT, ESPECIALLY GIVEN THE SUBSTANTIAL PROGRAM DAMAGE WHICH RESULTED FROM LAST YEAR'S IRRESPONSIBLE FUNDING ALLOCATION. THE $4.6 BILLION AUTHORIZED FOR FY92 SHOULD BE

VIEWED AS THE BARE MINIMUM NECESSARY TO SUSTAIN A VIABLE PROGRAM. FURTHER REDUCTIONS WOULD BE INTOLERABLE.

FINALLY, AND MOST IMPORTANTLY, THE ABM TREATY MUST BE MODIFIED TO PERMIT MULTIPLE SITE GROUND-BASED AND SPACE-BASED INTERCEPTOR SYSTEMS. WHILE DEPLOYMENT OF A SINGLE, TREATY COMPLIANT ABM SITE REPRESENTS AN IMPORTANT FIRST STEP, IT IS CLEAR THAT ONLY A MULTIPLE SITE ARCHITECTURE AFFORDS THE CAPABILITY TO DEFEND ALL AMERICAN CITIZENS AGAINST THE FULL RANGE OF LIMITED BALLISTIC MISSILE THREATS. I AM PLEASED THAT THE COMMITTEE HAS ESTABLISHED ARMS CONTROL OBJECTIVES TO BE NEGOTIATED WITHIN A LIMITED TIME FRAME. THIS IS CONSTRUCTIVE.

HOWEVER, THESE NEGOTIATIONS SHOULD BE ACCELERATED, AND THEIR DURATION SHORTENED. THE SOVIET'S MUST BE ADVISED THAT, WHILE THE UNITED STATES IS PREPARED TO NEGOTIATE PROSPECTIVE TREATY AMENDMENTS IN GOOD FAITH, ABSENT SOVIET CONCESSIONS, WE WILL NOT HESITATE TO EXERCISE OUR PREROGATIVES UNDER ARTICLE 15 TO PROTECT NATIONAL SECURITY.

I VOTED IN FAVOR OF THE MISSILE DEFENSE ACT BECAUSE I BELIEVE IT PROVIDES A VEHICLE FOR BIPARTISAN CONSENSUS IN SUPPORT OF BALLISTIC MISSILE DEFENSES. IMPORTANTLY, THE LEGISLATION LAYS THE PRELIMINARY GROUNDWORK IN ESTABLISHING A DETERRENT POSTURE WHICH INTEGRATES BOTH STRATEGIC OFFENSIVE AND DEFENSIVE FORCES. HOWEVER, IF WE ARE TO MEET OUR MORAL AND CONSTITUTIONAL RESPONSIBILITIES, CONGRESS MUST GO FURTHER. OUR ALLEGIANCE AND LOYALTY IS TO THE AMERICAN PEOPLE, NOT THE ABM TREATY. SPACE-BASED SYSTEMS, INCLUDING SENSORS AND INTERCEPTORS, COMBINED WITH MULTIPLE SITE GROUND-BASED NATIONAL AND THEATER DEFENSES, OFFER THE MOST COST-EFFECTIVE, AND OPERATIONALLY CAPABLE MISSILE DEFENSES. THE AMERICAN PEOPLE ARE ENTITLED TO THE BEST DEFENSE THAT TECHNOLOGY CAN PROVIDE. THEY WILL ACCEPT NOTHING LESS.

Bob Smith